

#### United States Department of the Interior

#### **BUREAU OF LAND MANAGEMENT**

Phoenix Field Office 21605 North 7<sup>th</sup> Avenue Phoenix, AZ 85027

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IN REPLY REFER TO: 6320 (020)

September 10, 2003

#### Dear Reader:

The Bureau of Land Management (BLM), Phoenix Field Office, has completed the draft Woolsey Peak Wilderness and Signal Mountain Wilderness Management Plan. Designated by the Arizona Desert Wilderness Act of 1990, the Woolsey Peak and Signal Mountain Wilderness areas total 77,350 acres and are located approximately 45 miles southwest of metropolitan Phoenix in southern Maricopa County.

The plan provides management objectives and actions for protecting and enhancing wilderness resources during the next 10 years. It also addresses the types and levels of uses to be allowed as intended by Congress. A schedule for implementing these management actions and evaluating their effectiveness is included in the plan. An Environmental Assessment (EA) has been prepared to evaluate the environmental effects of the management actions proposed in the plan. BLM intends no significant impact will occur as a result of implementing the plan and has prepared an unsigned Finding of No Significant Impact (FONSI) as part of the environmental documentation.

The purpose of this letter is to notify interested parties that the draft plan, EA and unsigned FONSI are available for review on the Internet at the following web address:

http://www.az.blm.gov/env\_docs/woolsey-signal.pdf

Comments on the draft plan, EA, and unsigned FONSI will be accepted through October 2003. Comments need to be sent to:

Bureau of Land Management, Phoenix Field Office Attention: David Scarbrough 21605 North 7<sup>th</sup> Avenue Phoenix, AZ 85027

Comments are most useful when they address requests for clarification, new information that would have a bearing on the plan and environmental analysis, and errors in the analysis.

If you would prefer a paper copy of the draft plan and environmental documents, you may request one by mail to the above address, by e-mail to David Scarbrough at David\_Scarbrough@blm.gov or by phone at (623) 580-5500.

Thank you for your interest in public land management.

Field Manager

Signed: Teresa A. Raml Authenticated: James F.Whitehall

Staff Assistant



# U.S. Department of the Interior Bureau of Land Management

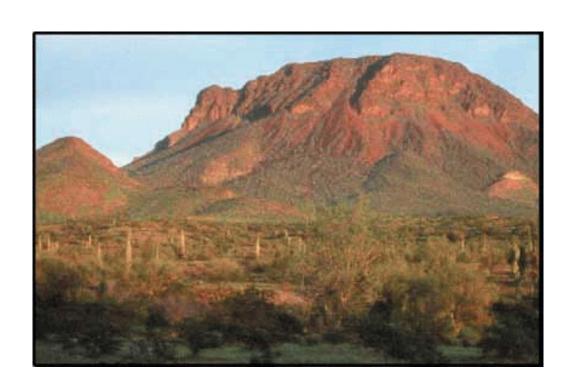
**Phoenix Field Office** 

August, 2003



# Woolsey Peak Wilderness and Signal Mountain Wilderness

**Draft Management Plan and Environmental Assessment** 



# Woolsey Peak Wilderness and Signal Mountain Wilderness Draft Management Plan and Environmental Assessment

U.S. Department of the Interior Bureau of Land Management Phoenix Field Office

E.A. No.: AZ-020-2003-0102

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#### **SUMMARY**

This plan covers the management of the Woolsey Peak Wilderness and the Signal Mountain Wilderness. Designated by the Arizona Desert Wilderness Act of 1990, the two areas total 77,350 acres and are located approximately 45 miles southwest of metropolitan Phoenix in southern Maricopa County. This is a ten-year plan, to be implemented from 2004 to 2014.

# Main Features of this Wilderness Management Plan

- · Three objectives are established:
  - Maintain or enhance the natural character of wilderness, and provide for the longterm protection of wilderness values;
  - 2. Maintain outstanding opportunities for primitive recreation and solitude; and
  - 3. Manage land issues and activities provided for in wilderness legislation, while also conserving wilderness values.
- Three former vehicle ways, totaling 3.78 miles, and one dirt airstrip, will be reclaimed using non-motorized hand tools. All other former vehicle ways (approximately 24.33 miles) will be allowed to reclaim naturally.
- A standard of no new surface disturbances, such as campsites, trails, fire rings, and vegetation damage, is established.
- A system of randomly located, permanent photo points to monitor vegetation and land condition in both wilderness areas, and in the non-wilderness corridor between the two areas, will be established.
- All wildfires in or threatening to enter wilderness will be suppressed.
- Commercial outfitting and guide use, including the use of pack animals such as burros, llamas, and goats, will be permitted.
- Easements to assure legal access to the southwestern part of the Woolsey Peak Wilderness will be acquired when the

opportunity arises.

- Approximately 1,037 acres of subsurface mineral estate owned by the state of Arizona in the Signal Mountain Wilderness will be acquired when the opportunity arises.
- Hiking and/or equestrian trails, trailheads, and other facilitated recreation amenities will not be designated or constructed.
- Maintenance and repair of range fences will be done using non-motorized hand tools.
- Maintenance and repair of one well and associated facilities located in the Woolsey Peak Wilderness may be accomplished by motorized and/or mechanized means.
- The landing of aircraft in wilderness for the purposes of livestock grazing management is prohibited.
- The use of motorized and/or mechanized equipment to retrieve sick, injured, or dead livestock and/or wildlife is permitted.
- The use of aircraft for purposes of wildlife management conducted by the Arizona Game and Fish Department will continue. This includes the repair and maintenance of wildlife water catchments, and the re-establishment, augmentation, or removal of native wildlife to establish or supplement existing populations.
- Two AGFD wildlife water developments (Bunyan Peak and Moody Spring) will be redeveloped to provide reliable sources of water for wildlife. This will be accomplished with helicopters and other motorized and mechanized equipment.
- Horses and wild burros will be removed from wilderness as their presence becomes known.
- The estimated expense over the 10-year implementation period was 15.0 workmonths labor cost to accomplish ongoing activities and

special projects, and \$19,850 in materials to complete identified special projects, or \$132,350 total. This figure does not include the costs of redeveloping and maintaining wildlife water developments.

#### I. Introduction

#### **Background and Purpose**

The Wilderness Act of 1964 established the foundation for the National Wilderness Preservation Subsequently, the Arizona Desert System. Wilderness Act of 1990 designated 39 areas of public land in Arizona as wilderness and added them to the system, including the Woolsey Peak and Signal Mountain wildernesses. Bureau of Land Management (BLM) Manual 8561 requires that management plans be prepared for these areas and recommends that environmental assessment documentation be included (BLM, 1984). Due to their proximity, and the similarity of ecosystems and issues to be addressed, these two wilderness areas are covered in this single management plan. The purpose of this plan is to provide management guidance to solve specific issues in these two areas of wilderness.

The plan provides management objectives and actions for protecting and enhancing wilderness resources during the next 10 years. It also addresses the level of uses to be allowed as intended by Congress. A schedule for implementing these management actions and evaluating their effectiveness is included.

The management actions proposed in this plan are consistent with, and supplementary to, the BLM Phoenix Field Office's "Lower Gila South Resource Management Plan" (BLM, 1988b), "Search and Rescue Plan" (BLM, 2002), and "Lower Gila South Habitat Management Plan" (BLM, 1990a). The management objectives and policies of the Phoenix Field Office's "Interim Guidance for Fire Suppression in Wilderness" (BLM, 1991) and "Wildlife Operations and Maintenance Plan" (BLM, 1993) for the Woolsey Peak and Signal Mountain wilderness areas have been incorporated into this plan.

Management actions 1-6 and 1-7 of this wilderness management plan affect a non-wilderness corridor between the two wildernesses. These proposed actions are a logical part of managing the affected

wildernesses and, therefore, are appropriately

addressed in this plan.

#### Wilderness Overview

The Woolsey Peak and Signal Mountain wildernesses are in the Sonoran Desert of southwestern Arizona in southern Maricopa County. The areas are within two hours driving time of metropolitan Phoenix, which has a population over 3 million people (Maricopa Association of Governments, 2002). Together, the two wilderness areas comprise 77,350 acres (Map 1).

#### **Boundaries and Access**

#### Woolsey Peak Wilderness

The Woolsey Peak Wilderness is bounded on the north by several primitive, two-track vehicle routes and approximately two miles of a livestock grazing allotment boundary fence. The eastern boundary is defined almost entirely by a prominent ridge of the Gila Bend Mountains. The southern boundary is comprised primarily by the legal boundary that delineated the Painted Rocks Reservoir withdrawal; however, approximately five miles of primitive, two-track vehicle routes and one mile of grazing allotment boundary fence also make up the southern boundary. The western boundary is a primitive, two-track vehicle route.

Access to the northern and eastern boundaries of the Woolsey Peak Wilderness is via Old U.S. 80, Agua Caliente Road, and Enterprise Road. The southern

and western boundaries are accessed from Interstate 8, Painted Rocks Dam Road, and Citrus Valley Road.

Primitive vehicle routes near the wilderness boundary typically are rugged in nature, with areas of deep sand, rock, and ruts that require high clearance and four-wheel-drive. Access to the southern boundary is always ephemeral due to periodic flooding of the Gila

River and the impoundment of runoff in the Painted Rocks Reservoir.

#### Signal Mountain Wilderness

The Signal Mountain Wilderness is bounded on the north by point-to-point, cross-country lines. The eastern and southern boundaries are primitive, two-track vehicle routes, and the western boundary is comprised of a grazing allotment boundary fence and ephemeral desert wash. A narrow, non-wilderness corridor is formed between the southern boundary of the Signal Mountain Wilderness and the northern boundary of the Woolsey Peak Wilderness. The primitive, two-track vehicle routes that access the boundary of the Signal Mountain Wilderness also are extremely rugged in nature and require a high-clearance, four-wheel-drive vehicle for safe travel.

#### **Topography and Climate**

The Woolsey Peak and Signal Mountain wilderness areas comprise about one-half of the Gila Bend Mountains. These mountains are a northwest to southeast trending desert mountain range that is typical of the Basin and Range Physiographic Province, a vast region of rugged mountain ranges separated by alluvium-filled valleys that includes southern Arizona. Views of the two wildernesses are dominated by Woolsey Peak (3,171 feet), Bunyan Peak (2,410 feet), and Signal Mountain (2,182 feet).

Climatological data from nearby Gila Bend, Arizona, indicate that average daily temperatures range from approximately 37°F in January to over 109°F in July. The record low temperature was 10°F in January, 1956, and the record high temperature was 123°F in July, 1936; however, temperatures of 90°F or greater have been recorded in every month of the year. The average daily maximum temperature exceeds 100°F during June through September (Sellers and Hill, 1974).

The average annual precipitation is 5.76 inches, with rainfall primarily occurring during winter and summer. Winter precipitation occurs with the passage of frontal storms moving inland from the Pacific Ocean. During summer, localized, often violent convective thunderstorms form and may lead to heavy rainfall amounts and even severe flooding over relatively small areas.

#### Soils

The soils of the Woolsey Peak and Signal Mountain wildernesses are derived of both alluvial and rock outcrop associations. Alluvial soil associations are loams, sandy loams, and gravelly loams that occur in nearly level to moderately steep topography on valley plains, alluvial fans, and low stream terraces. Areas of rugged topography are characterized by the "Cherioni-Rock outcrop association," which are thin, very gravelly loams of gently sloping to very steep mountains, buttes, and low hills (Soil Conservation Service, 1986).

Desert outwash plains, or "bajadas," are fan-shaped alluvial deposits of sand, gravel, and fine material that is carried from higher elevations to the valley floors during periods of flooding. Bajadas mark a transition from the high elevation, very steep mountain slopes to the nearly level valley floors, and are characterized by a diverse flora and fauna.

Extremely arid, low elevation areas of the two wildernesses are often covered by a layer of closely interlocked pebbles called "desert pavement," which is often interspersed by fist to head sized rocks and usually has been darkened with long exposure to the elements in a process called "desert varnish." Such areas may be nearly devoid of vegetation.

#### Vegetation

The Woolsey Peak and Signal Mountain wildernesses are within the "Sonoran Desertscrub" biome described by Brown (1982). In the lower elevations, the "creosote bush--white bursage series" plant community is dominant and covers the broad valley floors in sparse, monotonous stands of these two low-growing shrubs. With increasing elevation, white bursage (Ambrosia dumosa) decreases in abundance and is replaced by triangleleaf bursage (Ambrosia deltoidea), although creosote bush (Larrea tridentata) continues to occur with frequency at higher elevations. The bajadas and higher elevations of the mountain slopes are characterized by the "paloverde-cacti-mixed scrub series" plant community, which is dominated by the little-leaf paloverde (Parkinsonia microphyllum) and saguaro cactus (Carnegia gigantea). This plant community is representative of the popular perception of the Sonoran Desert, and includes a diverse assemblage of other cactus and woody plants such as prickly pear (Opuntia spp.), teddy bear cholla (Opuntia bigelovii), fishhook barrel cactus

(Ferocactus wislizenii), ironwood (Olneya tesota), blue paloverde (Parkinsonia floridum), mesquite (Prosopis spp.), and acacia (Acacia spp.).

The predominant range sites of the Woolsey Peak and Signal Mountain wildernesses are "Limy Upland," "Volcanic Hills," and "Loamy Bottom" for the 2"-7" precipitation zone (Soil Conservation Service, 1987). More complete descriptions of the vegetation of the two areas may be found by referring to the descriptions of these range sites. The general condition of vegetation for the two areas is estimated to be 8% "poor," 65% "fair," 13% "good," and 14% "excellent," with a "static" apparent trend (BLM, 1988b).

#### Wildlife

The fauna of the Woolsey Peak and Signal Mountain wildernesses is typical for the Sonoran Desert. Common wildlife of the two areas includes desert mule deer (Odocoileus hemionus crookii), desert bighorn sheep (Ovis canadensis mexicana), javelina (Dicotyles tajacu), coyote (Canis latrans), blacktailed jackrabbit (Lepus californicus), desert cottontail (Sylvilagus audubonii), Merriam's kangaroo rat (Dipodomys merriami), White-throated woodrat (Neotoma albigula), roadrunner (Geococcyx californianus), mourning dove (Zenaida macroura), Gambel's quail (Callipepla gambelii), white-winged (Zenaida asiatica), cactus wren dove (Campylorhynchus brunneicapillus), phainopepla (Phainopepla nitens), black-throated sparrow (Amphispiza bilineata), desert tortoise (Gopherus agassizii), chuckwalla (Sauromalus obesus), desert iguana (Diposaurus dorsalis), zebra-tailed lizard (Callisaurus draconoides), western diamondback (Crotalus atrox), and Mojave rattlesnake (Crotalus scutulatus). For comprehensive floral and faunal lists of the Sonoran Desertscrub biotic province see Brown (1982).

The Arizona Game and Fish Department (AGFD) is responsible for managing wildlife in the state of Arizona under authority of the Arizona Game and Fish Commission and Arizona Revised Statutes Title 17. The Bureau of Land Management is responsible for wildlife habitat on public lands under its administration under the laws of Congress and regulations of the Department of the Interior. The two agencies cooperate on wildlife-related management actions as set forth in the "Master Memorandum of Understanding between the State of Arizona, Arizona Game and Fish Commission,

and Department of the Interior, Bureau of Land Management (1987)." Past and present management actions for wildlife in the Woolsey Peak and Signal Mountain wildernesses have focused on desert bighorn sheep and desert mule deer. The Arizona Game and Fish Department estimates that approximately 140 desert bighorn sheep are present in these areas.

#### Water

There are five water sources in the Woolsey Peak Wilderness. These include one livestock well, one spring development, two wildlife catchments, and one undeveloped set of natural potholes. Signal Peak Wilderness has only one water source, a pothole-type catchment for wildlife. All other known sources of water are the result of runoff from periodic rainstorms that is captured in ephemeral pools and "potholes" scattered throughout the two areas.

#### **Cultural Resources**

Neither wilderness has been systematically inventoried for archaeological sites; however, aboriginal groups generally used desert mountains such as these for wild food procurement such as gathering of mesquite seed pods and cactus fruit harvesting, as well as hunting large and small game animals.

#### **General Management Situation**

#### **Existing Developments**

The present general management situation of the Woolsey Peak and Signal Mountain wildernesses is shown in Map 2.

All points where vehicle routes intersect wilderness boundaries have been posted; nevertheless, violations of wilderness boundaries by vehicles occasionally occur. Approximately 28 miles of former vehicle routes are present in the Woolsey Peak and Signal Mountain wildernesses (Table 1).

Table 1: Former Vehicle Ways in the Woolsey Peak and Signal Mountain wilderness areas.

Vehicle Way Location Length (miles) Woolsey Peak Wilderness W1 6.37 T. 3 S., R. 7 W., Sec. 13; T. 3 S., R. 6 W., Secs. 18, 19, 20, 29, 32, 33; T. 4 S., R. 6 W., 3, 4, 10, 15, 16, 21 W2 3.20 T. 3 S., R. 6 W., Sec. 19; T. 3 S., R. 7 W. Secs. 23, 24 W3 3.91 T. 3 S., R. 6 W., 19, 20, 30; T. 3 S., R. 7 W., W4 0.57 T. 3 S., R. 6 W., Sec. 3 T. 3 S., R. 6 W., Sec. 11 W5 0.18 W6 0.84 T. 3 S., R. 6 W., Sec. 11 W7 0.29 T. 3 S., R. 6 W., Sec. 14 T. 3 S., R. 5 W., Secs. 20, 21 W8 1.63 W9 1.67 T. 3 S., R. 5 W., Sec. 32; T. 4 S., R. 5 W., Sec. 5 W10 0.63 T. 4 S., R. 5 W., Sec. 7 W11 1.63 T. 4 S., R. 6 W., Secs. 7, 18 W12 0.36 T. 3 S., R. 8 W., Sec. 24 T. 3 S., R. 7 W., Sec. 24; T. 3 S. R. 8 W., W13 1.09 Sec.19 T. 3 S., R. 7 W., Secs. 19, 29, 30 W14 2.58 T. 3 S., R. 7 W., Sec. 16, 17 W15 0.29 W16 0.62 T. 3 S., R. 7 W., Secs. 14, 15 Total 25.86 Signal Mountain Wilderness S1 0.22 T. 2 S., R. 7 W., Secs. 28,.33 S2 0.89 T. 3 S., R. 6 W., Sec. 7; T. 3 S., R. 7 W., Sec. S3 1.14 T. 3 S., R. 7 W., Secs. 10, 15, 16 Total 2.25 Grand Total 28.11

Ten developments are present in the Woolsey Peak and Signal Mountain wilderness areas (Table 2). These are: two livestock grazing allotment fences, one "gap fence" for separating livestock grazing pastures, one well (including a windmill and corral), two dirt aircraft landing strips, and 4 water developments for wildlife.

The two allotment fences in wilderness separate the Gable-Ming Allotment from adjacent allotments. Both fences are functional. The gap fence, present in the Jagow-Kraeger Allotment, has not been recently maintained. Hank's Well No. 2, located in the Dendora Valley Allotment, is not functional. The livestock grazing permittee for the Gable-Ming Allotment has historically used the dirt landing strips

Table 2. Existing Developments and Human Impacts in the Woolsey Peak and Signal Mountain wilderness areas.

Development/ Impact	Project Number	Length (miles)	Condition	Location
Livestock Grazing Developments				
Dunigan Allotment Boundary Fence	0385	2.27	Functional	T. 3 S., R. 7 W., Secs. 19, 29, 30
Gable-Woolsey Peak Allotment Boundary Fence	1052	4.6	Functional	T 3 S., R. 6 W., Secs. 17, 19, 30; T. 3 S., R. 7 W., Sec. 25
Gap Fence		0.25	Nonfunctional	T. 3 S., R. 6 W., Sec. 11
Hanks Well No. 2	2367		Nonfunctional	T. 3 S., R. 8 W., Sec. 25 NE 1/4 NE1/4
Aircraft Landing Strip (Dirt) at bend in Woolsey Wash		0.25	Functional	T. 3 S., R. 7 W., Sec. 19 NE 1/4
Aircraft Landing Strip (Dirt) at Gable Well No. 2		0.25	Functional	T. 3 S., R. 7 W., Sec. 16 NW 1/4 SW 1/4
Wildlife Habitat Developments				
Moody Spring Development	AGFD 347	N/A	Functional	T. 3 S., R. 6 W., Sec. 13 SW 1/4 NW 1/4
Woolsey Peak Pothole	AGFD 951	N/A	Functional	T. 3 S., R. 6 W., Sec. 16 NW 1/4 NE 1/4
Bunyan Peak Catchment	AGFD 995	N/A	Functional	T. 4 S., R. 7 W., Sec. 3 NW 1/4 SE 1/4
Signal Peak Potholes	AGFD 942	N/A	Functional	T. 2 S., R. 7 W., Sec. 34 SW 1/4 NE 1/4

during the normal course of managing his livestock operations. Use is infrequent, and is not known to have occurred since wilderness designation.

The 4 wildlife water developments were constructed by, and are maintained by, the Arizona Game and Fish Department. All four water developments are important sources of water for desert bighorn sheep. Federal reserved water rights were established for each wilderness by the Arizona Desert Wilderness Act. Congress reserved a quantity of water for each wilderness sufficient to fulfill the purposes of the Act, with a priority date as of the date of the enactment. Water sources in each wilderness have been inventoried and quantified, and a notification was submitted to the Arizona Department of Water Resources in September, 1994.

#### **Adjacent Developments**

Twelve developments adjacent to the Woolsey Peak and Signal Mountain wildernesses comprise a portion of the wilderness boundaries, or have the potential to impact wilderness values during normal operating activities associated with these features. These are:

- Allotment Fence, Jagow-Kraeger and Hazen-Shepard allotments (Project No. 1938). This fence partly establishes the northeastern boundary of the Woolsey Peak Wilderness.
- Allotment Fence, Gable-Ming and Jagow-Kraeger allotments (Project No. 0526). This fence extends to the northern base of Woolsey Peak, but is "cherry stemmed" out of wilderness.
- Allotment Fence, Gable-Ming and Dendora Valley allotments (Project No. 0385). This fence forms the western boundary of the Signal Mountain Wilderness and extends into the Woolsey Peak Wilderness.
- Painted Rock Drift Fence (Project No. 1877).
   A portion of this fence serves as part of the boundary of the Woolsey Peak Wilderness in the vicinity of Painted Rocks Reservoir.
- Woolsey Seep (Project No. 473). Located in Woolsey Wash near Woolsey Well, this natural seep has been developed with a rock masonry diversion dam and a rock masonry cistern.
- · Woolsey Well (Project No. 1090).
- · Gable Well No. 2 (Project No. 4276).
- · Buckeye Copper Mine Well (Project No.

- 1183).
- Corps of Engineers Water Well and Corral. Located near the southwestern boundary of the Woolsey Peak Wilderness in T. 4 S., R. 8 W., sec. 1.
- Arizona Game and Fish Department wildlife water catchment No. 710. Located in T. 3 S., R. 7 W., sec. 15.
- Primitive dirt aircraft landing strip located on the dirt road between the Signal Mountain and Woolsey Peak wildernesses approximately ½mile west of Woolsey Well.
- Power poles located north of Moody Spring in T. 3 S., R. 6 W., sec. 12 (unsurveyed).

#### Air Quality

Under the Clean Air Act, BLM-administered lands were given Class II air quality classification, which allows moderate deterioration associated with moderate, well-controlled industrial and population growth. The BLM manages designated wilderness areas as Class II unless they are reclassified by the State as a result of the procedures prescribed in the Clean Air Act (BLM, 1983).

On-site air quality measurements are not available for the Woolsey Peak and Signal Mountain wilderness areas.

#### Inholdings

The BLM administers 100% of the surface and 98.7% of the subsurface mineral estate of the two wildernesses. The State of Arizona owns 1,037 acres of subsurface mineral estate in the Signal Mountain Wilderness.

#### **Aircraft Overflights**

By agreement between BLM and the Federal Aviation Administration (FAA, 1992), civilian aircraft are requested to maintain a minimum altitude of 2,000 feet above ground level or higher while in airspace over designated wilderness. This altitude advisory does not apply to military aircraft operating within an established military training corridor.

The Woolsey Peak and Signal Mountain wildernesses are occasionally overflown by military aircraft operating between Luke Air Force Base and the Barry M. Goldwater Air Force Range. The

frequency of these flights is not known; however, the Arizona Desert Wilderness Act of 1990 specifically provided for such use of this airspace by the military.

During the normal course of its wildlife management activities, the Arizona Game and Fish Department conducts annual aerial big game censuses and inspections of wildlife water developments. During the winter months, low-level, fixed-wing and helicopter inventories of desert mule deer, javelina, and desert bighorn sheep populations are conducted in census studies that normally take two to three days, but may last up to seven days. During the summer months, the Woolsey Peak Pothole (AGFD 951). Bunyan Peak Catchment (AGFD 995), and Signal Peak Potholes (AGFD 942) may be inspected by low-level aircraft, and, if water levels are low, may be supplemented with water flown in and dropped from a helicopter bucket. Throughout the year, monthly flights may be conducted over both wilderness areas to monitor and obtain telemetry data from transplanted, radio-collared desert bighorn sheep. Consistent with the "Master Memorandum of Understanding between the BLM and Arizona Game and Fish Commission" (Arizona Game and Fish Commission and BLM, 1987) and the "Wildlife Operations and Maintenance Plan" (BLM, 1993), the BLM is given advance written notification of all such flights.

Historically, livestock grazing operations on the Gable-Ming Allotment have been conducted with the periodic use of fixed-wing aircraft to locate and monitor livestock. This activity generally took place during the spring months when steers were grazed on the allotment.

#### **Law Enforcement and Emergency Services**

Emergency response and law enforcement activities are conducted by a variety of agencies and volunteer organizations. At present, there is no established coordination among these activities to minimize impacts to the wilderness areas. No incidents of search-and-rescue, criminal pursuit, and/or criminal investigation are known to have occurred in the

Woolsey Peak and Signal Mountain wilderness areas.

#### Wildland Fire Management

Natural wildfires have not exerted an influence on the ecosystems of these two wilderness areas. The dominant vegetative components have not evolved with, nor are they dependent on, fires for reproduction and survival. No plant species are believed to be decreasing due to a lack of naturally occurring wildfires. Records of fire occurrence kept by the Phoenix Field Office show one natural fire having occurred in the Woolsey Peak Wilderness and none

in the Signal Mountain Wilderness since 1980 (Graham, personal communication).

Current procedures allow for certain motorized and/or mechanized activities related to wildland fire suppression to occur in wilderness under very specific conditions when authorized by the Field Manager.

#### **Livestock Grazing**

The Woolsey Peak Wilderness includes portions of five grazing allotments — Gable-Ming, Jagow-Kraeger, Hazen-Shepard, Gila River Community, and Dendora Valley. The Signal Mountain Wilderness is entirely within the Gable-Ming allotment (Table 3).

The Gable-Ming Allotment is classified as a "Custodial, Perennial-Ephemeral" allotment (see Glossary). A permitted use of 4,200 Animal Unit Months (AUM's), the equivalent of 350 cattle yearlong, is allocated to the Gable-Ming Allotment. In addition, stocker livestock may be authorized seasonally during years when supplemental forage is available--usually in the winter and spring after significant rainfall. The Jagow-Kraeger, Hazen-Shepard, Gila River Community, and Dendora Valley allotments are classified as "Custodial, Ephemeral" allotments and may be grazed seasonally during years when forage is available. There is no perennial grazing preference for these allotments.

The Woolsey Peak and Signal Mountain wildernesses have been nearly entirely categorized as "Category II" desert tortoise (*Gopherus agassizii*) habitat (see "Threatened, Endangered, and Special Status Species" below). BLM grazing policy requires

Table 3. Livestock grazing allotments and acreage in the Woolsey Peak and Signal Mountain wilderness areas.

Allotment	Wilderness	Total Acreage of Allotment	Acres in Wilderness	% of Allotment in Wilderness
Gable-Ming	Signal Mountain Woolsey Peak		13,467 14,115	11 11
	Total:	124,385	27,582	22
Jagow-Kraeger	Woolsey Peak	13,190	4,037	31
Hazen-Shepard	Woolsey Peak	35,746	8,585	24
Gila River Community	Woolsey Peak	68,434	31,965	47
Dendora Valley	Woolsey Peak	34,448	5,758	17
Total:		276,203	77,927	28

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that forage competition between livestock and desert tortoise be minimized. On ephemeral and perennial/ephemeral allotments, ephemeral forage availability is jointly evaluated by a range conservationist and wildlife biologist when ephemeral grazing applications are received. If adequate ephemeral forage is determined to exist, or there is a high probability (based on rainfall accumulation prior to livestock turn-out) that sufficient ephemeral forage will be produced, ephemeral grazing permits may be issued in 15- to 30-day increments, but remain subject to additional joint evaluation for subsequent renewals. Livestock grazing permittees are responsible for maintaining all livestock grazing developments in wilderness.

During the last ten years, livestock have been authorized to graze in the Woolsey Peak and Signal Mountain wildernesses at numbers well below established preferences. No cattle have been authorized to graze the Jagow-Kraeger, Hazen-Shepard, Gila River Community, and Dendora Valley allotments during this period (Mohan, personal communication). From 1994 to 2003, livestock have been authorized for the Gable-Ming allotment as shown in Table 4. The stocking rate has been less than the allowable annual AUM's of 4,200, with additional stocker livestock authorized during 1995 and 2003. No adverse impacts to vegetation and

other wilderness values attributed to grazing by livestock are known.

#### **Horses and Wild Burros**

The Painted Rock Herd Area was designated for wild burros inhabiting an area west of the Painted Rock Mountains that extends on the south from Interstate 8 to near the Gila River channel on the north. Approximately 15-25 horses and wild burros inhabit this area (BLM, 1988b, 1999a). The herd area does not overlap the Woolsey Peak and Signal Mountain wildernesses. Horses and wild burros are known to occasionally range into the southwestern portion of the Woolsey Peak Wilderness but are transient and do not permanently range in wilderness. During January, 1996 to December, 1997, BLM gathered 12 horses that were damaging local farm crops, but no horses or wild burros have been removed from wilderness. No adverse impacts to vegetation and other wilderness values attributed to horses and burros are known.

Table 4. Livestock grazing history of the Gable-Ming allotment, 1994-2003.

Year	Animal Unit Month Active (A)	n's (AUM's) Authorized Ephemeral (L)
1994	0	0
1995	667	4,959
1996	502	0
1997	10	0
1998	0	0
1999	0	0
2000	0	0
2001	1,039	0
2002	259	0
2003	<u>1,485</u>	<u>49</u>
Total:	3,962	5,008

#### **Minerals**

There are no active mining operations in the Woolsey Peak and Signal Mountain wildernesses, and there are no mining claims, mineral leases, or permits to remove mineral materials from these areas. The filing of new claims in wilderness was prohibited by the Arizona Desert Wilderness Act. Potentially, the state of Arizona may lease 1,037 acres of subsurface mineral rights it owns in the Signal Mountain Wilderness for exploration and development.

#### **Threatened or Endangered Species**

No federally listed threatened or endangered species are known to inhabit the Woolsey Peak Wilderness and Signal Mountain Wilderness. Suitable habitat for three listed species occurs in the Woolsey Peak and Signal Mountain wildernesses; however, these species are not known to occur in these areas. The flowers and fruits of saguaro cactus used by the lesser longnosed bat (Leptonycteris curasoae yerbabuenae) are abundant within the wilderness areas; however, distribution of the bats is primarily to the south. Similarly, there is possible nesting habitat for the southwestern willow flycatcher (Empidonax traillii extimus) and the Yuma clapper rail (Rallus longirostris yumanensis) along the Gila River near Painted Rocks Dam, but none exists within the adjacent Woolsey Peak Wilderness.

#### Wildlife of Special Concern

The peregrine falcon (*Falco peregrinus*), a raptor that was removed from the endangered species list in 1999, is a likely inhabitant due to the excellent nesting habitat provided by rocky cliffs in the mountains of these two areas.

The BLM has established guidelines for desert tortoise habitat management (BLM, 1988a, 1990b). Nearly all of the Woolsey Peak and Signal Mountain wildernesses have been categorized as "Category II" desert tortoise habitat, meaning that the habitat area may be essential to maintenance of viable tortoise populations, most conflicts are resolvable, and the population is stable or decreasing.

Several species of birds generally found around water are frequently seen along irrigation ditches of farmlands adjacent to the Woolsey Peak Wilderness, but are not believed to occur in wilderness. Examples include great egret (Casmerodius albus), snowy egret (Egretta thula),

and belted kingfisher (*Ceryle alcyon*) (AGFD, in prep.).

#### Recreation

The Woolsey Peak and Signal Mountain wildernesses offer outstanding opportunities for

primitive and dispersed recreation, including hiking, camping, hunting, rockhounding, horseback riding, sightseeing, and wildlife viewing. Visitation figures are not available; however, both areas receive relatively low levels of dispersed recreational day use.

More visitors travel by foot than by horse. Most visitation occurs from October through May, primarily for hunting and day hiking. Overnight camping is primarily associated with hunting; however, hunting camps are usually outside of wilderness. There is no widespread evidence of camping, including visual evidence of wood gathering or rock fire rings, within these wilderness areas. Overall, use by recreationists is widely dispersed. Visitation is expected to increase modestly over the next ten years in concert with regional population growth, but day use probably will remain the primary type of recreational activity in both areas.

No trails or other recreational facilities are present in either wilderness. Visitor-to-visitor encounter information is not available but is believed to be very infrequent. The slow growth rate of woody species used for firewood (mesquite, ironwood, and paloverde) indicate that sustained firewood availability is limited, but damage to standing vegetation from this use is not evident.

No commercial recreational use of these areas has been permitted, although demand for such activity may emerge during the next ten years. Guided big game hunting may be permitted and occurs under Arizona Game and Fish Department and BLM regulations. As of December, 2003, there were four bighorn sheep permits in AGFD Unit 39, which includes the Woolsey Peak and Signal Mountain wildernesses. These are sometimes guided hunts.

The Woolsey Peak and Signal Mountain wildernesses offer outstanding opportunities for solitude. Disruptions are limited to the occasional sounds of passing trains along the Southern Pacific Railroad (located approximately one-half mile from the western border of the Signal Mountain Wilderness) and the occasional sounds of local aircraft and fighter jets passing overhead. The sight of agricultural and flood control activities, including fields and two dams, from the southern and eastern boundaries and highest elevations of the Woolsey Peak Wilderness are the primary compromises to naturalness. Lesser impacts to

naturalness due to light and air pollution originating from the Phoenix metropolitan area can be seen from the two wilderness areas.

#### **Authorized Motorized/Mechanized Uses**

Certain motorized uses are authorized in the wilderness areas. Emergency response, some law enforcement activities, and other motorized activities are provided for by statute, regulation, and policy.

Motorized access may be used for emergency rescue of sick livestock. As described under the "Aircraft Overflights" subheading of this section, the AGFD may conduct aerial surveys and reconnaissance of wildlife populations and water developments, and use aircraft for supplementing water developments. The AGFD may also use motorized vehicles and equipment for the emergency repair or re-development of water developments as described in management actions 3-5 and 3-6 of this plan. Aircraft may be used by AGFD to augment, re-establish, or remove wildlife from the two areas, but the use of motor vehicles for this purpose in wilderness is not authorized.

Personnel of the U.S. Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS) may conduct predator control activities in wilderness when requested by livestock grazing permittees. Approval of requested motorized/mechanized access for predator control activities is handled on a case-bycase basis by the Phoenix Field Office Field Manager. The need for, and restrictions on, such actions in wilderness are addressed in work plans prepared by the Wildlife Services Program of USDA-APHIS. No such predator control activities have occurred in the Woolsey Peak and Signal Mountain wildernesses.

Motorized activity relating to wildland fire suppression may be authorized by the Field Manager under specific conditions.

#### II. National Wilderness Management Goals

Four standard goals have been established by the Bureau of Land Management for the management of designated wilderness areas. These goals directed the objectives, policy, management strategies, and actions developed in this plan. The four goals are:

- 1. To provide for the long-term protection and preservation of the area's wilderness character under a principle of nondegradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they will remain unimpaired.
- 2. To manage the wilderness area for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.
- 3. To manage the area using the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.
- 4. To manage nonconforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character. Nonconforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

#### III. Issues

Planning issues were identified by BLM Phoenix Field Office staff, other agencies, affected interests, and the public during issue scoping meetings held at Phoenix, Gila Bend, and Wickenburg during October, 1994. A planning work group composed of BLM Phoenix Field Office staff, Arizona Game and Fish Department staff, affected interests, and interested members of the public was subsequently formed and met during September, 1995 through March, 1996 to refine these issues and propose management actions. Issues were separated into three categories:

- · Management Plan Issues,
- Issues Solved Through Policy or Administrative Action, and
- · Issues Beyond the Scope of This Plan.

Management Plan Issues listed below were discussed and addressed in the "Wilderness Management" section of this plan. Issues resolved through existing regulations or BLM Manual guidance (i.e. routine administrative actions) were listed and discussed below as "Issues Solved Through Policy or Administrative Action." Matters of federal or state law that were beyond the jurisdiction of this plan were listed and discussed below as "Issues Beyond the Scope of This Plan."

Issues and management concerns remain the same as documented by the planning work group and BLM staff in 1996. BLM staff and the public have brought forth no new or substantially different issues since that time; thus, no additional scoping was deemed necessary for the preparation of this plan.

#### **Management Plan Issues**

Categories of issues and the questions addressed were:

# 1. Protecting and enhancing the natural character of wilderness.

- How will unauthorized off-road vehicle use be discouraged?
- How will former vehicle routes and abandoned range developments be reclaimed?
- · How will existing disturbances, refuse, and

- debris be cleaned up, and new disturbances reclaimed?
- How will cultural resources (prehistoric and historic) be protected?
- How will the non-wilderness road corridor between the two wilderness areas be managed?
- What standards will be measured to monitor change in natural conditions, and how will this monitoring occur?

# 2. Providing opportunities for solitude and primitive recreation.

- Will expected increases in visitor use require recreation facilities to ensure the quality of these experiences? What, if any, facilities should be provided?
- Should hiking trails be established and maintained?
- How should equestrian use be managed?
- Should commercial outfitting and guide use be allowed, and, if so, how should this activity be managed?
- Will pack animals such as burros, llamas, and goats be allowed; how will strays and associated problems with these animals be addressed?
- What use standards and other regulations should be established for recreational activities? What techniques will be used to measure these standards?
- What actions, if any, are needed to maintain solitude?
- What level of public awareness should be promoted through interpretation and education?
- Will increases in visitor use cause disturbances to wildlife (e.g. desert bighorn sheep and desert tortoise), and, if so, should recreation use levels or areas be curtailed to minimize impacts?
- Should current access be maintained?
   Should legal access be acquired?
- Will fees be charged for wilderness visitation?

# 3. Managing other land uses and activities provided for by wilderness legislation.

What is the "minimal tool" necessary to:

- maintain existing livestock developments.
- retrieve sick or injured livestock,
- maintain or upgrade existing wildlife water sources,
- conduct game surveys,
- respond to wildlife emergencies.
- retrieve radio-transmitters and carcasses.
- suppress wildfires,
- locate and round up feral horses and burros, and
- conduct BLM administrative actions?
- What uses of motorized equipment and mechanized transport are acceptable for these activities under the Wilderness Act?
- What, if any, new developments are needed in wilderness (e.g. fences, tanks)?
- What future inventory or research is needed (e.g. wildlife survey, ecosystem mgt., cultural site inventory) and will mechanized equipment be allowed for this purpose?
- How will horses and wild burros be managed?
- How will existing range and wildlife developments be maintained?
- Is the landing of aircraft in Woolsey Peak Wilderness critical to the management of grazing operations?

#### 4. Managing vegetation.

- What is the present range, or ecological, condition of vegetation in the wildernesses, and what actions, if any, are needed to maintain or improve vegetative conditions?
- Is there forage competition between livestock and wildlife, and, if so, how will it be addressed?
- How will the natural fire regime be managed to maintain wilderness values?
- What monitoring standards and techniques will be used to measure changes in vegetative condition? How can interested individuals assist in this monitoring?

# Issues Solved Through Policy or Administrative Action

The following issues were addressed by existing statute, policy, or regulation:

1. How will visitor conduct be regulated?

Rules of conduct will be enforced in accordance with 43 CFR 8365 and 43 CFR 6300.

2. How will law enforcement and search-andrescue activities involving other federal, state, or county agencies, or agents, be conducted and coordinated?

BLM regulations and policy regarding temporary law enforcement emergencies that involve criminal law violations and the pursuit of fugitives in wilderness are set forth at 43 CFR 6303 and BLM Manual 8560.39C(11). Search-and-rescue responsibilities are delegated from the Governor of Arizona to county boards of supervisors and the respective sheriffs; these activities are regulated at 43 CFR 6303 and BLM Manual 8560.39C(4).

Such activities may include the use of motorized equipment, mechanical transport, aircraft, installations, structures, rock drills, and fixed anchors. Per section 101(e) of the Arizona Desert Wilderness Act of 1990, mechanized or motorized equipment may also be used by Arizona Game and Fish Department law enforcement officials where major wildlife violations (i.e. illegal taking of multiple animals or sensitive, threatened, or endangered species) have occurred in wilderness.

BLM will require any restoration activities deemed necessary to be undertaken concurrently with the emergency activities or as soon as practicable when the emergency ends.

3. What is the role of federal law enforcement authorities?

All federal regulations will be enforced by BLM law enforcement agents and rangers. Violators will be detected through periodic patrol and investigative follow-up of reports by the public and employees of the BLM and other agencies. Prohibited acts defined at 43 CFR 6302.20 are subject to the penalties provided for at 43 CFR 6302.30.

4. Should the BLM's ability to provide law enforcement be a factor in deciding what recreational developments will be provided?

Recreational developments generally are designed and constructed to accommodate current and anticipated recreational demand. Staffing decisions, including for law enforcement personnel, are made in response to management

direction and anticipated workload.

5. Will the 1,037 acres of subsurface mineral estate owned by the state of Arizona be acquired or protected from mineral development?

These mineral rights were identified for acquisition in the "Arizona Wilderness Land Tenure Adjustment Plan (1992)." Such inholdings will be acquired as the opportunity arises.

Although BLM cannot prevent the development of state-owned minerals, BLM does have the authority and responsibility to regulate surface use on state-owned minerals where the surface estate was acquired by BLM under an exchange. To prevent unnecessary or undue degradation of the public lands, BLM may consider any surface values that need protection from mining operations and may restrict the time, place, and manner of surface use as long as mining is not altogether denied. Access and authorization of surface uses for mining activities may be granted with a land use permit per 43 CFR 6305 and 43 CFR 2920, and such permit will contain reasonable stipulations to protect surface values.

Typically, the state will not issue a permit or sale of mineral materials if BLM has a valid reason(s) for not authorizing the activity that coincides with state's authority to deny the application. The state also allows for BLM input and review of a potential action(s), and requires compliance with all federal laws, a bond for reclamation, and all necessary permits.

6. How will predator inventory and animal damage control be handled?

Animal damage control on public lands in Arizona is handled by the Wildlife Services Program of the U.S. Department of Agriculture-Animal and Plant Health Inspection Service (USDA-APHIS), in cooperation with the Arizona Game and Fish Department and BLM. Such activities include the control of predators, rodents, and other wildlife which cause damage or pose threats to human health, native wildlife, or livestock.

The need for, and restrictions on, such actions in wilderness are addressed in USDA-APHIS work plans prepared by the Wildlife Services Program in cooperation with the PFO. Guidance is provided by a memorandum of understanding between the

two agencies (BLM and USDA-APHIS, 1989) and an environmental assessment on predator damage management on federal public lands in Arizona (USDA-APHIS, 1998).

7. How will insect infestations and noxious weeds be handled?

Measures to control insect infestations and noxious weeds may be prescribed under regulations set forth at 43 CFR 6304.22. Current wilderness management policy described at BLM Manual 8560.35(B) states that "insect and disease outbreaks must not be artificially controlled, except to protect timber or other valuable resources outside of the wilderness area, or in special instances when loss to resources within a wilderness is undesirable (e.g., absence of control would threaten rare or endangered plants or animals)."

No insect infestations that would allow for special management actions are known to have occurred in the Woolsey Peak and Signal Mountain wildernesses, nor is such an infestation anticipated for the future.

Exotic noxious weeds, including tamarisk (*Tamarix pentandra*), sahara mustard (*Brassica tournefortii*), and garden rocket (*Eruca sativa*), have been documented in the Woolsey Peak and Signal Mountain wildernesses, but are not expected to threaten wilderness values during the life of this plan.

8. How will adjustments in livestock use of wilderness be handled?

Wilderness statutes, regulations, and policy provide for livestock grazing in wilderness. Livestock numbers and/or seasonal adjustments of grazing permits will be determined in accordance with livestock grazing regulations at 43 CFR 4100. 9. Will new livestock watering sources be allowed near the wilderness areas?

This plan does not address range improvements that may be proposed adjacent to wilderness. Documents providing guidance that may regulate such proposals for this part of the Phoenix Field Office include the "Lower Gila South Resource Management Plan (1988b)," specific allotment Range Improvement Plans, the "Lower Gila South

Habitat Management Plan (1990a)," and the "Strategy for Desert Tortoise Habitat Management on Public Lands in Arizona (1990b)."

10. How will desert bighorn sheep population goals and new water developments in wilderness be facilitated?

As provided in the Wilderness Act and Arizona Desert Wilderness Act, jurisdiction for the management of wildlife populations remains with the state of Arizona. Management activities may be carried out in wilderness where consistent with relevant wilderness management plans and in accordance with appropriate policies and guidelines.

Present BLM Arizona policy allows for the consideration of new wildlife water developments in wilderness on a case-by-case basis.

11. Will commercial vegetation harvesting be allowed (i.e. jojoba beans and other native plant seeds)?

Commercial activities, other than those necessary for activities which are proper for realizing recreational or other wilderness purposes, are prohibited by statute from wilderness.

Commercial harvesting of vegetation in wilderness is prohibited.

12. Will the BLM file for water rights in wilderness?

Section 101(g) of the Arizona Desert Wilderness Act reserved a quantity of water sufficient to fulfill the purposes of each wilderness area. The priority date of such reserved rights shall be the date of enactment of the Act.

The BLM was directed to take steps necessary to protect these rights, including the filing of a claim for the quantification of such rights in any present or future appropriate stream adjudication in the Arizona state courts. BLM submitted notification to the Arizona Department of Water Resources in September, 1994, of its rights for both the Woolsey Peak and Signal Mountain wilderness areas.

13. Will scientific research projects be allowed in wilderness?

Scientific information may be gathered in wilderness subject to regulations set forth at 43

CFR 6302.16. Generally, scientific research projects may be carried out in wilderness if similar research opportunities are not available outside of wilderness; the activity is carried out in a manner compatible with the preservation of wilderness values; ground disturbance or removal of material is minimal; and authorization is obtained from the BLM.

14. How will Native American traditional and religious use of these areas be accommodated?

In accordance with the American Indian Religious Freedom Act (42 U.S.C. 1996), American Indians may use wilderness areas for traditional religious purposes, subject to the provisions of the Wilderness Act, the prohibitions in 43 CFR 6302.20, and other applicable law.

Although individuals may use the Woolsey Peak and Signal Mountain wildernesses for traditional or religious purposes, none of the seven Tribal Councils

or Nations contacted have indicated a need for special consideration for such activities.

15. The use of public lands should be permit-free and cost-free.

Authority for the collection of fees was provided by several statutes, including the Land and Water Conservation Fund Act of 1965, the Federal Land Policy and Management Act of 1976, and the Omnibus Consolidated Rescissions Act of 1996 (Recreation Fee Demonstration Program). Current BLM policy allows for the collection of fees to recoup some or all of the costs of managing wilderness resources (43 CFR 6302). The PFO does not anticipate a need to implement a visitor permit system or fee schedule for the Woolsey Peak and Signal Mountain wildernesses during the life of this plan (per management action 2-6). provided unacceptable impacts due to recreation use do not occur (per management action 1-6). Current BLM policy requires commercial outfitters and guides to obtain a Special Recreation Permit for operations conducted on public land, including wilderness.

16. What will be the additional workload placed on the BLM as a result of the wilderness plan?

The additional workload that is anticipated to accrue to the Phoenix Field Office as a result of

the provisions of this plan are detailed in section "VII. Implementation Schedule And Cost Estimates."

#### Issues Beyond The Scope of This Plan

The following issues are specifically addressed by statute and would require changes to existing law, do not fall under the purview of land use planning at the wilderness plan (or "activity plan") level, or require no action.

1. The mineral potential of these areas should not be lost due to wilderness designation; accommodate areas that may contain mineral deposits of future significance.

Mining is addressed at section 4(d)(3) of the Wilderness Act of 1964. There are no active mining claims, mineral leases, or permits to remove mineral materials from the Woolsey Peak and Signal Mountain wildernesses. No new mineral claims and/or leases may be established.

2. How can former vehicle ways be reopened to motorized/mechanized use by the public?

Such action is specifically prohibited by section 4(c) of the Wilderness Act of 1964.

3. What can be done to prevent military aircraft overflights of wilderness?

Overflight of the Woolsey Peak and Signal Mountain wildernesses by military aircraft was specifically addressed and allowed by section 101(i) of the Arizona Desert Wilderness Act of 1990.

The BLM forwards reports of unusual or unsafe military aircraft operations to the appropriate command.

4. Will facilities for the physically challenged be constructed to ensure access to wilderness?

Existing statutes, regulations, and policy provide that wheelchairs may be used in wilderness; however, BLM is not required to facilitate such use by building any facilities or modifying any conditions of lands within a wilderness area.

5. Will mineshafts west of Webb Mountain be closed?

Mineshafts near Webb Mountain do not pose a wilderness safety issue; such closure may be effected outside the purview of this plan. There are no known open mineshafts in wilderness.

6. How will horses and wild burros in the Painted Rock Herd Area be managed? Reduce burro numbers in the Painted Rock Herd Area to zero.

The Painted Rock Herd Area does not overlap the Woolsey Peak and Signal Mountain wildernesses. The management of burros in this herd area is addressed by the Lower Gila South Resource Management Plan (1988b). Expansion of burros beyond the herd management area into wilderness is an issue addressed in section "V. Wilderness Management" (management action 3-8).

7. Should barbed-wire fences enclosing existing wildlife water catchments be modified with pipe-rail to provide for better access by wildlife?

All wildlife water catchments within the wilderness either are fenced with pipe rails or are intended to remain unfenced.

8. What can be done to prevent trampling of desert tortoise by livestock?

There are no known incidents of such trampling in the Woolsey Peak and Signal Mountain wildernesses.

9. Monetary compensation should be provided to owners of private land inholdings in wilderness.

There are no private inholdings in the Woolsey Peak and Signal Mountain wildernesses.

10. Cost comparisons for managing these areas as wilderness, contrasted to management of these areas as if they were not designated as wilderness, should be included as a part of this plan.

Such a comparison would not affect wilderness designation or management direction. Costs related to implementation of this plan are provided in section "VII. Plan Implementation Schedule."

#### IV. Management Strategy

The strategy of the Woolsey Peak and Signal Mountain Wilderness Management Plan was to maintain and protect the near-pristine character of the two wildernesses, as well as the outstanding opportunities for solitude and primitive recreation the two areas offer, while also accommodating existing land uses. The strategy recognized that metropolitan Phoenix and the adjacent rural communities are expected to experience dramatic population growth during the life of the plan, but that the impacts of this growth are not anticipated to significantly impact these two areas of wilderness. Both the Woolsey Peak Wilderness and Signal Mountain Wilderness are expected to remain as relatively remote and isolated areas of land that will retain their primeval character without aggressive management prescriptions.

Accordingly, management objectives were formulated to address existing issues in a manner that would minimize impacts to wilderness values and preserve these values for the future. Standards were developed, and non-intrusive methods of measurement adopted, to monitor the efficacy of these actions.

#### V. Wilderness Management

This section addressed the management plan issues identified during the issue scoping process and listed in section "III. Issues." The objectives and management actions that were formulated provided the means for resolving these issues in concert with the "National Wilderness Management Goals" and "Management Strategy" discussed earlier in this document.

Three wilderness management objectives were derived to address the four categories of issues. Objective 1 included actions designed to address issue categories 1 and 4. Objectives 2 and 3 included actions to address issue categories 2 and 3, respectively.

#### Objective 1.

Maintain or enhance the natural character of the Woolsey Peak and Signal Mountain wildernesses, and provide for the long-term protection of wilderness values, by:

- eliminating or reducing the evidence of human disturbances in wilderness,
- managing human impacts in the Woolsey Wash corridor and along other wilderness boundaries,
- protecting prehistoric and historic cultural resources, and
- maintaining a typical Sonoran Desertscrub plant community, as described by Brown (1982), and Soil Conservation Service range sites "Limy Upland," "Volcanic Hills," and "Loamy Bottom" for the 2"-7" precipitation zone (Soil Conservation Service, 1987).

# Management Actions to Accomplish Objective 1:

1-1. Reclaim former vehicle ways W6, W12 from Hank's Well No. 2 to the intersection with W13, and W14 (total distance approximately 3.78 miles). Such reclamation may be accomplished using non-motorized means including hand tools, seeding and planting of native vegetation, movement and placing of native rock and vegetative materials, application of artificial "desert varnish," and other standard reclamation techniques for arid lands. All other former vehicle ways listed in Table 1 will be allowed to reclaim naturally (total distance

approximately 24.33 miles).

Rationale: Former vehicle ways identified for reclamation by the active means described exhibit a high degree of visual contrast with the surrounding wilderness landscape, and are in areas characterized by impermeable soil conditions that render natural reclamation unlikely during the life of this plan. The remaining former vehicle ways listed in Table 1 are in areas where the visual contrast is less apparent and the soils are more likely to support the establishment of vegetation by natural means.

1-2. Reclaim the dirt airstrip in wilderness located near Gable Well No. 2 using non-motorized means including hand tools, seeding and planting of native vegetation, movement and placing of native rock and vegetative materials, application of artificial "desert varnish," and other standard reclamation techniques for arid lands.

Rationale: Per Management Action 3-3, this airstrip no longer will be used, exhibits a high degree of contrast with the surrounding wilderness landscape, and is characterized by impermeable soil conditions that render natural re-vegetation unlikely during the life of this plan.

1-3. Construct vehicle barriers, outside of wilderness, at the intersection of any former vehicle way listed in Table 1 with the wilderness boundary, or any new vehicle way, if unauthorized motorized access is determined to compromise wilderness values. Such barriers may consist of signs and signposts, native rock and boulders, short lengths (less than 1,000 feet) of barbed-wire fencing or steel post-and-cable fencing, and/or wood or steel bollards placed so as to prevent vehicles from entering wilderness.

Rationale: Vehicle barriers may help to preserve wilderness values by preventing unauthorized motorized access to wilderness and facilitating natural reclamation of former vehicle ways.

1-4. Using the "minimum tool" necessary (which may include motorized or mechanized methods in extraordinary circumstances), maintain a standard of no new evidence of surface disturbances such as campsites, trails, fire rings, displaced rocks

(other than casual collection) and vegetation damage; and remove miscellaneous debris, household dumps and litter, and abandoned equipment and materials as budget and staffing resources allow.

Rationale: Such action will serve to protect and enhance the natural values of wilderness.

1-5. Using the "minimum tool" necessary (which may include motorized or mechanized methods in extraordinary circumstances), protect the integrity of cultural resources by posting signs, installing fencing, and/or prohibiting access when such resources appear to have undergone recent degradation, or when such degradation is anticipated.

Rationale: Cultural resources are known to exist in the two wilderness areas, but a systematic inventory for cultural sites has not been conducted. Such action will serve to protect and enhance the natural values of wilderness.

1-6. The grazing management objective of the Lower Gila South RMP, "to maintain ecological rangeland condition currently in good to excellent condition and to improve those areas in poor to fair condition," will be brought forward and incorporated as part of this plan (BLM, 1988b). The existing rangeland monitoring program also will be brought forward and incorporated as part of this plan: "On selected perennial-ephemeral allotments, monitoring studies would include (1) actual yearly livestock use, (2) forage utilization, (3) trend in rangeland condition, and (4) precipitation. Monitoring studies on allotments classified as ephemeral would consist of photo points at selected key areas" (BLM, 1988b).

Rationale: Change to the existing rangeland condition objective was not determined to be necessary, and continuity in the monitoring program will be assured.

- 1-7. Establish a system of randomly located, permanent photo points to monitor vegetation and land condition in both wilderness areas and in the non-wilderness corridor between the two areas. The photo points will be established and monitored by the following methodology and standards:
  - Each photo point will be numbered and permanently marked with a wooden stake and metal tag, or a stamped metal stake,

- driven to ground level. The location of each will be recorded by Universal Transverse Mercator (UTM) or latitude and longitude using a Global Positioning System (GPS) unit, and mapped on a topographic map.
- Four color photographs will be taken from each photo point, one in each of the four cardinal directions.
- The photos will be organized and placed into a binder, together with the map showing the location of all photo points, to be kept in the official wilderness file with notes recorded at the time of establishment indicating the predominant species of vegetation and observer's impressions of the area around the point.
- Approximately 80 such points are anticipated to be adequate for the two wilderness areas, and 5-10 will be necessary for the non-wilderness corridor.
- Photo points in the non-wilderness corridor may be intentionally located near sensitive areas or areas of anticipated recreational impact.
- The photos will be repeated at approximately 5-year intervals and compared, together with any recorded observations and notes, for unacceptable changes and impacts (defined below) that would indicate that the "Additional Actions, If Required" described below are appropriately implemented.
- Unacceptable change from the current condition of vegetative cover and land condition in the two wilderness areas will be indicated by change in the composition or reduction in the numbers of native vegetation; increased presence of exotic vegetation; increases in the presence or amount of broken tree limbs, animal trails, trampling, and other impacts from forage utilization by livestock and wildlife; and increased evidence of soil erosion.
- Unacceptable impacts attributed to recreational use of the non-wilderness corridor between the two areas will be indicated by the increased presence of vehicle tracks off the main travel route, crushed shrubbery, cut or broken limbs of standing vegetation, campsites, fire rings, litter, and other evidence of human impact.

Rationale: This system of periodically repeated photo points will provide a cost effective means of monitoring and comparing vegetation and land

condition through time, and is expected to provide timely warning of deleterious impacts to the natural character of wilderness.

1-8. Prohibit fuelwood permits and competitive special recreation permits, such as motorized off-highway vehicle events, in the non-wilderness corridor between the two wilderness areas and on adjacent boundary roads.

Rationale: The removal of large amounts of firewood, and the presence of events such as motorized off-highway vehicle events, in the non-wilderness corridor and adjacent boundary roads will deleteriously impact the natural values of the adjacent wilderness.

1-9. Suppress all wildfires in or threatening to enter the wildernesses. Fire suppression techniques and strategy, including the use of motorized and/or mechanized means, will follow the procedures outlined in Appendix B.

Rationale: Wildfires do not appear to have played an important role in shaping the natural plant communities of these wildernesses. Vegetation damage by fires will be minimized by active suppression.

#### Additional Actions, If Required:

If unacceptable changes in the vegetative cover and land condition of the wilderness and non-wilderness corridor described in management action 1-6 are observed, the following indirect or direct actions, separately or in combination, may be implemented by the Field Manager, without additional environmental analysis, to mitigate impacts and restore natural conditions:

#### **Indirect Methods**

- · Inform visitors about less congested areas.
- Provide information to encourage the use of lightly used or relatively unknown areas or to stress the experience and values to be found outside the peak use period.
- Minimize the promotion of an outdoor experience in wilderness and emphasize such uses of undeveloped areas outside wilderness.
- Educate visitors on wilderness manners, "Leave No Trace" and "Tread Lightly" principles, and general land use ethics.
- · Neglect access road maintenance.

#### **Direct Methods**

- · Increase field presence by BLM staff.
- Establish three fenced exclosures: (1) northwest of Bunyan Peak to assess the grazing impacts of feral horses; (2) southwest of Signal Mountain to assess the foraging impacts of desert bighorn sheep: and (3) within one mile of Gable Well No. 2 to assess cattle grazing impacts. A change in native perennial plant species composition outside the exclosure from that inside the exclosure would further document unacceptable change and require BLM to initiate modifications to existing horse and wild burro management, livestock grazing, and wildlife management in concert with the Arizona Game and Fish Department, grazing permittee, and other affected interests.
- Install vehicle regulatory signs near the nonwilderness corridor; an informational or regulatory sign display; brochure dispenser; and/or a visitor register if impacts to the nonwilderness corridor are judged to be increasing. Such educational materials may include information from the "Tread Lightly" and "Leave No Trace" programs, and similar materials.
- Reclaim areas of disturbance in wilderness, and, outside of wilderness, leave persistent sites and reclaim transient disturbances.
- Designate camping/use areas; redirect, limit, or ban camping.
- · Require charcoal fires only.
- Limit the number of people, saddle horses, and/or pack stock in parties, or the number permitted to stay overnight at specific locations.
- Limit the total numbers of users, length of stay, or season of use.
- · Charge fees for use.

Rationale: These actions will protect the natural values of wilderness while also accommodating use of the wilderness and non-wilderness corridor with a minimum of intrusion by regulatory authority until impacts to natural values are anticipated to occur.

#### **Objective 2**

Maintain outstanding opportunities for primitive recreation and solitude by:

- Allowing commercial outfitting and guide use.
- Acquiring legal access as opportunities arise, and
- Not designating or constructing trails, trailheads, or other facilitated recreation developments.

# Management Actions to Accomplish Objective 2

2-1. Permit commercial outfitting and guide activities under the regulations for issuing special recreation permits at 43 CFR 8372, consistent with wilderness management regulations at 43 CFR 6300.

Rationale: Commercial outfitting and guide activities, especially for hunting purposes, are a traditional use of wilderness and contribute to wilderness values.

- 2-2. Allow "recreational livestock," such as pack animals, burros, llamas, and goats, to be used in wilderness subject to the terms of use permits authorized under 43 CFR 8372, and provided that the following stipulations are followed:
  - Feed will be supplied and packed into the wilderness.
  - · Hay is prohibited,
  - Animals will be hobbled or restrained during lengthy rest stops and overnight stays in places which are not susceptible to overt surface disturbances, and in such a manner that vegetation will not be girdled, eaten, or otherwise damaged by the animals or their restraints, and
  - Stray or diseased animals will be addressed by state of Arizona estray laws and/or animal damage control described in "Issues Solved Through Policy or Administrative Action," issue number 6.

Rationale: These measures will assure that excessive soil compaction, defoliation, and the accumulation of hay residue and introduction of non-native weed seeds will not occur, nor will stray or diseased animals remain in wilderness.

2-3. Acquire easements to assure legal access across T4S, R8W, section 13 W1/2 SW1/4; T4S, R8W, section 2.

Rationale: These easements will assure legal access to the Woolsey Peak and Signal Mountain

wildernesses from the Painted Rock Dam Road.

- 2-4. Do not plan for or designate hiking and/or equestrian trails in wilderness.
- 2-5. Do not construct trailheads or other facilitated recreation developments adjacent to wilderness. This does not preclude minimal clearing and grading of naturally surfaced parking areas, and/or the posting of visitor registers or minimal signing, should the need for such areas become evident.
- 2-6. Do not implement a fee schedule for visitation to wilderness, or the non-wilderness corridor, unless unacceptable change from recreation impacts occurs per management action 1-7 and "Additional Actions, If Required."

Rationale: The current high-quality opportunities for primitive recreation and solitude are not expected to change significantly during the life of this plan. Recreation facilities such as developed trailheads, information displays, and toilet facilities are not expected to be necessary to manage visitor use. The lack of use standards, recreation facilities, and fees are expected to contribute to outstanding opportunities for solitude and primitive, unconfined recreation in these areas.

#### **Objective 3**

Manage land uses and activities provided for in wilderness legislation, while also conserving wilderness values, by:

- defining limits on the use of motorized equipment for activities associated with livestock grazing, wildlife management, horse and wild burro management, wildland fire suppression, and scientific study and inventory.
- defining the need for additional range developments,
- defining the need for re-development of existing wildlife water developments, and
- defining how horses and wild burros will be managed in wilderness.

# Management Actions to Accomplish Objective 3

3-1. Maintenance and repair of range fences in wilderness will be by non-motorized means only.

Rationale: The Dunigan (0385) and Gable-

Woolsey Peak (1052) allotment fences were found to be functional during initial inventory of facility condition for this plan (Table 1). Periodic maintenance is expected to retain these facilities in a functional condition without the need for large amounts of materials that might require motorized access. The absence of vehicles on former vehicle routes in wilderness will allow quicker, more complete restoration to natural conditions.

3-2. Maintenance and repair of Hank's Well No. 2, and associated facilities, may be by motorized means. A request for, and notification of the need for, such access will be provided to the BLM Phoenix Field Office at least 180 days prior to initiation of work. The BLM Phoenix Field Office reserves the right to attach conditions to the granting of such access and associated activity to conserve wilderness values.

Rationale: Motorized equipment may be needed to restore the well to functional capability. Per management action 1-1, access to the well will be retained.

3-3. Prohibit the landing of aircraft in wilderness for the purpose of livestock grazing management, and recommend adherence to the Federal Aviation Administration's requested minimum above ground flight altitude of 2,000 feet by civilian aircraft operating over wilderness (FAA, 1993).

Rationale: The proximity of roads to nearly all range developments provides adequate access for the inspection and maintenance of these facilities. Livestock and fences may be monitored by horseback or on foot.

3-4. For purposes of wildlife management conducted by the Arizona Game and Fish Department, the management objectives. constraints, and direction detailed in the "Wildlife Operations and Maintenance Plan" (BLM, 1993) and generally described in the "General Management Situation, Aircraft Overflights" section of this plan will be carried forward and adopted as a part of this plan. This will include the notification and overflight procedures listed in Appendix C. "Wildlife Operations Plan." Aircraft may be used by AGFD for periodic census surveys of big game: monitoring, maintaining, and supplementing wildlife water catchments; and the capture and removal of big game animals for the purposes of transplanting to other areas. Native big game wildlife also may be placed into the Woolsey Peak and Signal

Mountain wildernesses using aircraft. It is anticipated that captured animals would be removed, or placed into, an area by sling load. The use of motor vehicles, such as pickup trucks, in wilderness for the purpose of wildlife capture or introduction is not authorized under this plan. The landing of aircraft for purposes of routine maintenance on water developments, retrieval of radio-collars, and similar instances is not authorized under this plan. The landing of aircraft for purposes of catchment re-development may occur.

Rationale: These activities are believed to be the "minimum tool" necessary to efficiently monitor existing water developments and wildlife populations. Efficient monitoring and survey is necessary to potentially identify population and habitat trends that may pose a loss to wilderness values. Aircraft are believed to be the "minimum tool" necessary to accomplish big game removals and transplants that may be of importance to conserving wilderness values.

3-5. The Bunyan Peak wildlife water catchment (AGFD 995) will be re-developed by AGFD in cooperation with BLM. Three existing, fiberglass water storage tanks will be removed and replaced with a single, fiberglass "ring tank" five feet in height and twenty feet in diameter. The tank will be above-ground. The existing corrugated tin apron will be replaced, or a supplemental corrugated tin apron approximately 24 feet by 96 feet will be constructed adjacent to the existing apron. Approximately 400 feet of pipeline will be constructed to replace the existing pipeline, and will connect the tank, apron(s), and drinking trough. All new and existing components of the development will be painted or stained in colors to blend with the surrounding landscape. A helicopter will transport personnel and materials to the site, and mechanized and motorized equipment such as welders, generators, compressors, concrete mixers, and electric hand tools will be necessary to complete the redevelopment.

Rationale: The Bunyan Peak wildlife water development is not functioning as designed and is likely to completely fail without re-development. Re-development of this water catchment will improve the reliability of this existing water source for wildlife (desert bighorn sheep, in particular) and reduce or eliminate the need to haul supplemental water by helicopter during periods of drought.

3-6. The Moody Spring wildlife water catchment (AGFD 347) will be re-developed by AGFD in cooperation with BLM. Water storage capacity will be increased at the site by either 1) placing an additional, fiberglass "sausage-shaped" water storage tank to complement the existing tank, or 2) the existing tank will be replaced by a single, fiberglass "ring tank" five feet in height and twenty feet in diameter. The existing pipeline from the collection point to the water storage tank, and from the water storage tank to the drinking trough will be replaced. All new and existing components of the development will be painted or stained in colors to blend with the surrounding landscape. A helicopter will transport personnel and materials to the site. and mechanized and motorized equipment such as welders, generators, compressors, concrete mixers, and electric hand tools will be necessary to complete the re-development.

Rationale: The Moody Spring wildlife water development does not have sufficient storage capacity to retain available water for wildlife throughout the summer dry season. This is compounded by leaking, inadequate pipelines from the collection point to the storage tank, and from the tank to the drinker. Re-development of this water catchment will improve the reliability of this existing water source for wildlife (desert bighorn sheep, in particular) and reduce or eliminate the need to haul supplemental water by helicopter during periods of drought.

3-7. Motorized means may be used to retrieve sick, injured, or dead livestock and/or wildlife; however, the use of motorized means is not authorized to retrieve radio transmitters, receivers, animal markers, or similar instruments.

Rationale: A potential loss to wilderness values or accepted land uses may be constituted by sick, injured, or dead animals; thus, the use of motorized means may be the "minimum tool" necessary for handling such situations. Where a threat to wilderness values or accepted uses is not evident, the use of motorized and/or mechanized means is not considered appropriate in wilderness.

- 3-8. The use of motorized and/or mechanized means for the suppression of wildland fires will be as described in Appendix B.
- 3-9. The use of motorized and/or mechanized means for the collection of data related to scientific studies will not be authorized in wilderness, unless,

as per 43 CFR 6302.16, a determination may be made that no alternative opportunity exists and motorized and/or mechanized means are the "minimal tool" necessary.

Rationale: Although motorized and/or mechanized means of scientific study generally are discouraged in wilderness, this plan recognizes that the Woolsey Peak and Signal Mountain wildernesses may offer resources for scientific study that do not exist elsewhere.

3-10. No additional range developments are authorized by this plan.

Rationale: Range developments needed for these allotments were identified and analyzed by the "Lower Gila South Resource Management Plan" (BLM, 1988). No new range developments were identified as necessary during issue scoping for this plan.

3-11. Horses and wild burros will be removed from wilderness as their presence becomes known. Motorized means will not be used to accomplish such removals, unless the use of such equipment is determined to be the "minimal tool" necessary to preserve wilderness values (i.e., use of a helicopter to locate and herd widely scattered animals). The temporary placement in wilderness of corrals, chutes, traps, and other means to capture horses and wild burros in wilderness is authorized. Aircraft may be used to transport such materials (such as with sling loads), but the use of motor vehicles in wilderness is not authorized.

Rationale: Horses and wild burros are not known to have occurred historically in the Woolsey Peak and Signal Mountain wildernesses, and do not constitute a component of the wilderness value of these two areas.

#### VI. Plan Evaluation

The success of this plan in meeting its three objectives will be measured by the system of permanent photo points described in management action 1-6, completion of the plan's implementation schedule, and the reports and observations of periodic field visits by BLM personnel. All field reports, photographs, and monitoring data will be maintained in official wilderness files at the BLM's Phoenix Field Office.

This plan will be revised when the management actions prescribed no longer meet the wilderness management objectives, or when a change in the existing situation warrants a new approach. The need for such a revision will be reviewed at least once every five years. These reviews will be conducted by an interdisciplinary team which will document its recommendations to the Field Manager. If the decision is made to revise the plan, it will be done with public participation and the authorized officer's approval. Minor revisions, such as typographical errors, may be made at any time by inserting an errata sheet.

#### VII. Implementation Schedule And Cost Estimates

BLM Phoenix Field Office staff, with the help of other personnel and public interest groups, will implement this wilderness management plan. These personnel will promote the long-term conservation of wilderness values offered by the Woolsey Peak and Signal Mountain wildernesses by carrying out the ongoing field and office activities requisite for effective day-to-day wilderness management, and through the completion of special projects.

#### **On-going Activities**

The activities and estimated costs listed in Table 5 are those believed required to effectively administer a program of wilderness management on a day-to-day basis for the Woolsey Peak and Signal Mountain wildernesses.

Table 5. Ongoing activities for day-to-day management of the Woolsey Peak and Signal Mountain wildernesses.

Activity	Estimated Labor Cost (workmonths per year)*
Conduct regular patrols of wilderness boundaries and vehicular access points, including uniformed field presence during high-use periods such as weekends, holidays, and hunting seasons. Make regular field contacts with wilderness visitors to ensure compliance with regulations. Provide information reinforcing wilderness values such as "Leave No Trace" impact techniques. Provide miscellaneous services such as distributing litter bags, brochures, maps, and area information, as well as information on non-wilderness recreational opportunities.	0.25
Maintain boundary signing and vehicle barriers. Rehabilitate to as nearly natural a condition as possible all unauthorized vehicle entry points, fire rings, and other surface disturbances resulting from visitor use.	0.25
Initiate and maintain regular wilderness boundary patrols by BLM law enforcement officers with wilderness staff, including, but not limited to, uniformed patrols during high-use periods, investigation of unauthorized motorized entry and other criminal activities, and visitor contact.	0.25
Monitor standards for naturalness, solitude, and vegetation to include number of authorized mechanized uses, range site surveys, and photo point system.	0.25
Evaluate and take action to protect prehistoric, historic, and culturally sensitive sites or areas from vandalism and/or looting, when necessary.	As needed
Conduct compliance checks of authorized mechanized uses.	As needed

Table 5. Continued.

Activity	Estimated Labor Cost (workmonths per year)
Issue commercial recreational outfitter-guide permits. Contact permittees and conduct compliance checks.	As needed
Coordinate with the Arizona Game and Fish Department to administer hunting guide-client permits. Issue special use permits as assigned. Contact outfitter-guides to ensure permit compliance.	As needed
Update wilderness implementation schedule as needed.	As needed
Document incidents of aircraft observed or reported below the 2,000-foot Federal Aviation Administration advisory, including aircraft type and direction of travel.	As needed
Evaluate research proposals; permit those acceptable and monitor activities to ensure permit compliance. Request copies of research reports.	As needed
Provide for fire suppression activities.	As needed
Total	1.0

<sup>\*</sup> One workmonth = 173 hours, or approximately \$7,500 salary cost.

#### **Special Projects**

The activities and estimated costs listed in Table 6 are for special projects identified by this plan. Special projects are high priority activities believed essential to protect and preserve wilderness values in the Woolsey Peak and Signal Mountain wildernesses. This list is for general scheduling and tracking, and does not suggest that projects will be completed in the order listed, or that the projects are listed by importance. Most projects are contingent on indications of unacceptable changes in, or adjacent to, wilderness as described by management action 1-6 and "Additional Actions, If Required."

Table 6. Special projects identified to protect and enhance wilderness values of the Woolsey Peak and Signal Mountain wildernesses.

Project	Estimated Materials Cost	Estimated Labor Cost (workmonths)*
Reclaim former vehicle ways W6, W12 from Hank's Well No. 2 to the intersection with W13, and W14 (total distance approximately 3.78 miles).	e \$15,500**	1.0
Reclaim the dirt airstrip in wilderness located near Gable Well No. 2.	\$ 4,000**	1.0
Construct vehicle barriers, outside of wilderness, if unauthorized motorized access is determined to compromise wilderness values.		As needed
Acquire approximately 1,037 acres of subsurface mineral estate owned by the state of Arizona in the Signal Mountain Wilderness.		1.0
Acquire easements to assure legal access across T4S, R8W, section 13 W1/2 SW 1/4; T4S, R8W, section 2.		As needed
Establish a system of randomly located, permanent photo points to monitor vegetation and land condition in both wilderness areas and in the non-wilderness corridor between the two areas.	\$350	2.0 <sup>+</sup>
Provide for any, or all, of the actions listed under management action 1-8 as "Additional Actions, If Required."		As needed
Remove horses and wild burros from wilderness.		As needed
Re-develop the Bunyan Peak wildlife water catchment (AGFD 995)	No Estimate	No Estimate
Re-develop the Moody Spring wildlife water catchment (AGFD 347)	No Estimate	No Estimate
Total	\$19,850	5.0

<sup>\*</sup> One workmonth = 173 hours, or approximately \$7,500 salary cost.

<sup>\*\*</sup> Estimates are for a contract handcrew at a cost of \$7,000 per week and progress rate of 2 miles per week, plus miscellaneous supplies and materials.

<sup>&</sup>lt;sup>+</sup> This project is anticipated to be accomplished through the use of volunteers (workmonth cost was estimated for completion by BLM staff).

#### VIII. Environmental Assessment

E.A. No.: AZ-020-2003-0102 Case File No.: AZA 25496 and AZA 25488

#### Introduction

#### **Purpose and Need**

The Woolsey Peak and Signal Mountain wildernesses were designated by the Arizona Desert Wilderness Act of 1990 (Public Law 101-628). BLM Manual 8561 establishes that BLM will manage wilderness with the guidance of a wilderness plan. This environmental assessment analyzes the environmental and social impacts of the proposed wilderness management plan (attached) and one alternative, a "no-action" alternative.

The purpose of the proposed action is to preserve and enhance wilderness values while also providing opportunities for solitude and primitive recreation, as well as managing other land uses and activities provided for by wilderness legislation. The plan is designed to respond to management issues identified for the two areas by BLM staff, other agencies, and the public. Additional environmental assessments will be completed when site-specific projects not included in the attached plan are proposed.

#### **Conformance with Land Use Plan**

The proposed action and no-action alternative addressed in this environmental assessment are consistent with the Lower Gila South Resource Management Plan (BLM, 1988b).

# Relationship to Statutes, Regulations, or Other Plans

The Wilderness Act of 1964 (Public Law 88-577) defined wilderness as "an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions." Under the

Act, the BLM must manage wildernesses within its jurisdiction to protect wilderness values.

Wilderness preservation became one of the BLM's multiple-use mandates with the signing of the

Federal Land Policy and Management Act of 1976 (FLPMA) (Public Law 94-579). The Arizona Desert Wilderness Act established the Woolsey Peak and Signal Mountain wildernesses.

Regulations governing the management of wilderness by BLM are found at 43 CFR 6300. BLM Manual 8560, "Management of Designated Wilderness Areas," provides additional guidance.

This environmental assessment complies with the National Environmental Policy Act of 1969 (Public Law 91-190) by providing the decision-maker with appropriate alternatives for managing these two wildernesses and describing the environmental impacts of implementing each of the alternatives. A 45-day comment period is provided for public review and input to this environmental assessment.

Where the environmental impacts of actions proposed in these alternatives have been assessed in previous environmental assessment documentation in land use or activity plans, the impacts are summarized in this document.

Proposed management actions are consistent with, and supplementary to, the BLM Phoenix Field Office's "Search and Rescue Plan" (BLM, 2002) and "Lower Gila South Habitat Management Plan" (BLM, 1990a). The management objectives and policies of the Phoenix Field Office's "Interim Guidance for Fire Suppression in Wilderness" (BLM, 1991), and "Wildlife Operations and Maintenance Plan" (BLM, 1993) for the Woolsey Peak and Signal Mountain wildernesses have been incorporated into the proposed management actions.

# **Description of Proposed Action and Alternative**

Two management alternatives are presented below, a "proposed action" and "no action." As no unresolved conflicts involving alternate uses of resources, or options offering meaningful differences in environmental impacts, were identified during the course of this analysis, this

range of two alternatives was considered to be sufficient (BLM, 1999b).

The final decision for managing the Woolsey Peak and Signal Mountain wildernesses may consist entirely of one alternative, or may consist of portions of the two different alternatives.

### Alternative A. Proposed Action

The proposed action is the total of 26 management actions described in section "V. Wilderness Management" of the preceding "Woolsey Peak Wilderness and Signal Mountain Wilderness Draft Management Plan." Emphasis is on protecting and enhancing the natural character of wilderness while also providing opportunities for solitude and primitive recreation, and managing other land uses and activities provided by wilderness legislation. Due to their proximity, and the similarity of ecosystems and issues to be addressed, the two wilderness areas were covered under a single plan.

A total of approximately 3.8 miles of former vehicle ways and one dirt airstrip in the Woolsey Peak Wilderness will be reclaimed to as nearly a natural a condition as possible using non-motorized hand tools, seeding and planting of native vegetation, movement and placing of native rock and vegetative materials, application of artificial "desert varnish," and other standard reclamation techniques for arid lands. An additional 24.3 miles of former vehicle ways in the Woolsey Peak and Signal Mountain wildernesses will be allowed to reclaim naturally.

Vehicle barriers may be constructed at the wilderness boundary if unauthorized motorized access is determined to compromise wilderness values. Such barriers may consist of signs and signposts, native rock and boulders, short lengths (less than 1,000 feet) of barbed-wire fencing or steel post-and-cable fencing, and/or wood or steel bollards placed so as to prevent vehicles from entering wilderness.

A standard of no new surface disturbances in wilderness, such as campsites, trails, fire rings, displaced rocks (other than casual collection) and vegetation damage, will be adopted.

Miscellaneous debris, abandoned equipment and materials, litter, and household dumps will be removed as budget and staffing resources allow. In all cases described above, the "minimum tool" necessary will be used, which may include motorized or mechanized methods in extraordinary

circumstances.

Cultural resources will be protected by signing, fencing, or access prohibitions when necessary to protect wilderness values.

The grazing management objective of the Lower Gila South RMP, "to maintain ecological rangeland condition currently in good to excellent condition and to improve those areas in poor to fair condition," will be brought forward. The existing rangeland monitoring program also will be brought forward, and a system of randomly located, permanent photo points to monitor vegetation and land condition in both wilderness areas and in the non-wilderness corridor between the two areas will be established. Unacceptable changes in vegetation and land condition (defined in management action 1-7) may trigger additional management actions consisting of indirect and direct methods to correct the causes of such changes. These additional management actions are described in detail in the attached proposed plan under the heading "Additional Actions, If Required."

Fuelwood permits and competitive special recreation permits, such as motorized off-highway vehicle events, will not be authorized in the non-wilderness corridor between the two areas and on adjacent wilderness boundary roads.

All wildfires in or threatening to enter the wildernesses will be suppressed.

Commercial outfitting and guide activities will be permitted and "recreational livestock," such as burros, llamas, and goats will be allowed subject to certain use restrictions (described in management action 2-2).

Easements to assure legal access will be acquired when the opportunity is afforded.

No designated hiking and/or equestrian trails will be established in wilderness, nor will recreational developments such as trailheads, campgrounds, or other facilities be constructed adjacent to wilderness. Visitor use fees will not be levied, unless warranted by conditions described in management action 1-7.

The maintenance and repair of range fences in wilderness will be by non-motorized means. Hank's Well No. 2 (project no. 2367) may be repaired and maintained with motorized and/or mechanized equipment pending prior notification

and approval by the BLM Phoenix Field Office.

Aircraft overflights for the purposes of wildlife management as described in management action 3-4 will continue. Aircraft landings in wilderness for the purposes of livestock grazing management will be prohibited. Aircraft landings in wilderness for the purposes of capturing and removing, or placing into wilderness, big game animals by the AGFD may occur; however, the use of motorized vehicles, such as pickup trucks, in wilderness for the purpose of wildlife capture or introduction is not authorized. The landing of aircraft for purposes of wildlife water catchment re-development may occur.

As described by management actions 3-5 and 3-6, the Bunyan Peak and Moody Spring wildlife water catchments will be re-developed by AGFD. Aircraft and motorized and mechanized equipment may be used to complete these projects.

The use of motorized and/or mechanized equipment to retrieve sick, injured, or dead livestock and/or wildlife is authorized; however, the use of motorized means is not authorized to retrieve radio transmitters, receivers, animal markers, or similar markers.

Motorized and/or mechanized equipment may be used to suppress wildfires as described in "Appendix B. Wildland Fire Suppression Procedures."

The use of motorized and/or mechanized means for the collection of data related to scientific data collection will not be authorized in wilderness, unless a determination may be made that no alternative opportunity exists and motorized and/or mechanized means are the "minimum tool" necessary.

No new range developments are authorized by this plan.

Horses and wild burros will be removed from wilderness as their presence becomes known. Motorized means will not be used to accomplish such removals, unless the use of such equipment is determined to be the "minimal tool" necessary to preserve wilderness values. Temporary placement in wilderness of corrals, chutes, traps, and other means to capture horses and wild burros in wilderness is authorized. Aircraft may be used to transport such materials, but the use of motor vehicles in wilderness is not authorized.

### Alternative B. No Action

Under this alternative, the BLM would not initiate any new actions. Management would occur reactively as issues arise, with the exception of actions approved by the "Wildlife Operations and Maintenance Plan" (BLM, 1993), "Lower Gila South Habitat Management Plan" (BLM, 1990a), and "Interim Guidance for Fire Suppression in Wilderness" (BLM, 1991). There would be no other plans to provide direction for management activities and all new actions would be considered on a case-by-case basis with guidance provided by 43 CFR 6300 and national BLM wilderness policy as set forth in BLM Manual 8560 (BLM, 1983).

No specific actions for the reclamation of existing disturbances in wilderness and protection of cultural resources would be enacted. The establishment of a system of photo points for monitoring vegetation and land condition would be not be enacted.

A standard of no new evidence of surface disturbances would not be adopted; competitive special recreation permits such as motorized off-highway vehicle events may be authorized in the non-wilderness corridor between the two areas and on adjacent wilderness boundary roads on a case-by-case basis; and the use of motorized and mechanized means for the repair and maintenance of range fences and developments, wildlife management activities, and horse and wild burro management may be authorized as requested on a case-by-case basis.

Designated trails; recreation facilities such as developed trailheads, information displays, and toilet facilities; social use standards; and user fees may be enacted on a case-by-case basis.

Easements to assure legal access in T4S, R8W, sections 2 and 13 would not be acquired.

Fuelwood permits may be allowed in the wilderness corridor between the two areas on a case-by-case basis, and restrictions on bringing hay into wilderness will not be enacted. Aircraft landings in wilderness and the use of motorized and mechanized means for repair and maintenance of range fences in wilderness may be authorized as requested on a case-by-case basis. The use of motorized and/or mechanized equipment to repair Hank's Well No. 2 would not be authorized.

The capture and removal, or placement into wilderness, of native wildlife such as bighorn

sheep will not be authorized, and horses and wild burros would not be removed from wilderness as their presence becomes known.

### **Affected Environment**

Detailed descriptions of the environment affected by the proposed action and no action alternative can be found in the "Lower Gila South Final Wilderness Environmental Impact Statement" (BLM, 1987), pp. 72-75, and pp. 1-4 of the "Woolsey Peak Wilderness and Signal Mountain Wilderness Draft Management Plan."

# **Environmental Consequences**

The following critical elements of the human environment have been analyzed and either are not present, or, based on current information, would not be affected by either the Proposed Action or the No Action alternatives:

- · Air Quality
- · Areas of Critical Environmental Concern
- · Cultural Resources
- Environmental Justice/Impacts to Minority and Low Income Communities
- Prime or Unique Farmlands
- Floodplains
- · Native American Religious Concerns
- Threatened or Endangered Species
- Solid or Hazardous Wastes
- Water Quality (Surface and Ground)
- Wetlands or Riparian Zones
- · Wild and Scenic Rivers
- · Invasive, Non-native Species

Impacts to the following characteristics of the Wilderness critical element, and other management considerations, were analyzed for the Proposed and No Action alternatives, and are discussed in detail below:

- Naturalness
- Solitude
- Recreation
- Vegetation
- Livestock Grazing
- Wildlife
- Horses and Wild Burros
- · Administrative Costs
- Environmental Justice/Impacts to Minority and Low Income Communities
- Energy Resources
- Cumulative Impacts

For the purposes of this analysis, "naturalness" refers to an area which "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable" (BLM, 1983). "Solitude" refers to "the state of being alone or remote from habitations; isolation. A lonely, unfrequented, or secluded place" (BLM, 1983). "Short-term effects" are those effects caused during the construction and/or initial operation of the proposed action. "Long-term effects" are effects caused by the proposed action after the proposed action has been completed and/or after the proposed action is in full and complete operation.

### Impacts of Alternative A. Proposed Action

### Naturalness and Solitude

The reclamation of 3.8 miles of former vehicle ways and one dirt airstrip in the Woolsey Peak Wilderness will result in long-term impacts to naturalness as the routes and airstrip identified for reclamation exhibit a high degree of visual contrast with the surrounding wilderness landscape, and are in areas characterized by impermeable soil conditions that render natural reclamation unlikely during the life of the proposed plan. The proposed reclamation, including using hand tools to loosen the soil of the disturbed areas, planting of native vegetation, placement native rock and vegetative materials, and application of chemicals to accelerate the natural processes of desert varnish formation, all will act to reduce current unnatural visual contrast and cause these disturbances to blend naturally with the adjacent desert landscape.

Naturalness and solitude would be maintained by the construction of vehicle barriers at wilderness boundaries if unauthorized motorized access is determined to compromise wilderness values. This would be accomplished by a reduction in the visible evidence of unauthorized motorized access to wilderness such as tire tracks and crushed vegetation, as well as the occasional audible impacts of machine noise.

The standard of no new evidence of surface disturbances such as campsites, trails, fire rings, damaged vegetation, litter, and miscellaneous debris will maintain the current naturalness and sense of solitude of the two areas.

The use of signs, fencing, access restrictions, and motorized and/or mechanized means to protect cultural resources in the Woolsey Peak and Signal Mountain wildernesses has not occurred; however,

the use of such management tools is provided by this plan with the expectation that future need for protection of cultural values will not occur at the expense of significant impacts to naturalness and solitude. Signs and fencing would be designed to be as unobtrusive as possible while still being effective. Impacts from such actions may include the permanent or semi-permanent presence of signs, signposts, and barbed-wire fencing. Access restrictions and the use of motorized and/or mechanized equipment would be used only so long as necessary to effectively protect cultural values. The impacts resulting from such actions are anticipated to be short-term and minimal, and may include the temporary presence of vehicles, machine noise, and vehicle tracks. Impacts to naturalness and solitude would be mitigated and reclaimed to the extent possible.

Implementation of a system of permanent photo points to monitor vegetation and land condition, both in wilderness and in the adjacent nonwilderness corridor, will act to preserve and enhance naturalness by providing visual documentation through time of impacts that may occur due to forage utilization by livestock and/or wildlife, trailing by animals, trampling, presence of non-native vegetation, soil erosion, vehicle tracks, crushed shrubbery, cut or broken limbs of standing vegetation, campsites, fire rings, litter, and other evidence of human impact. Coupled with the specified "Additional Actions, If Required," the photo documentation and specified responses may be expected to enhance naturalness and feelings of solitude by providing a means of detection and early response to such impacts to wilderness values.

Naturalness and solitude will be maintained by the lack of designated hiking and equestrian trails; recreational facilities such as developed trailheads, information displays, and toilet facilities; social use standards; and user fees. The proposed action attempts to ensure that current outstanding opportunities for solitude are maintained for wilderness visitors. Visitation is anticipated to be light and dispersed in the expansive landscapes, rather than concentrated at developed sites. The demand and need for facilitated recreation opportunities is not expected to be so great as to require measures to ameliorate impacts to wilderness values during the life of this plan.

The prohibition of competitive special recreation permits, such as motorized off-highway vehicle events, in the non-wilderness corridor between the two areas and along adjacent boundary roads will

act to maintain a sense of solitude in the adjacent wilderness areas by acting to lessen the likelihood of the sights and sounds of motor vehicles.

Natural wildfires have not exerted an influence on the ecosystems of these two wilderness areas. The dominant vegetative components have not evolved with, or are they dependent on, fires for reproduction and survival. The suppression of wildfire in or threatening to enter wilderness will act to maintain naturalness. Fire suppression techniques and strategy, including the use of motorized and/or mechanized means, will be weighed against the potential impacts to naturalness and solitude as outlined in "Appendix B. Wildland Fire Suppression Procedures" of the proposed plan. Records of fire occurrence kept by the Phoenix Field Office indicate the occurrence of one natural fire having occurred in the Woolsey Peak Wilderness, and none in the Signal Mountain Wilderness, since 1980.

The use of non-motorized and non-mechanized means for repair and maintenance of range fences and developments, wildlife management activities, and horse and wild burro management, unless otherwise determined to be the "minimal tool" for such activities, will contribute to maintenance and enhancement of naturalness and a sense of solitude by lessening the likelihood of visual and audible impacts of motor vehicles in wilderness.

The use of aircraft by AGFD for purposes of wildlife management as detailed in management action 3-4 of the proposed action will cause short-term impacts to naturalness and solitude due to the temporary sights and sounds of aircraft operation over wilderness at low altitudes.

### Recreation

The Woolsey Peak and Signal Mountain wildernesses offer free, unregulated, and non-facilitated primitive recreation opportunities. The planned absence of designated hiking and equestrian trails, recreational facilities, social use standards, and user fees is expected to maintain the current outstanding opportunities for primitive recreation.

The prohibition of competitive special recreation permits, such as motorized off-highway vehicle events, in the non-wilderness corridor between the two areas and on adjacent wilderness boundary roads is not expected to lessen opportunities for motorized recreation. No such applications have been received; although interest has been

expressed (approximately 1994) for a motorized event along boundary roads in the northeastern portion of the Woolsey Peak Wilderness. Acceptable and appropriate locations for motorized events are available in adjacent areas of public lands where impacts to wilderness values would not be anticipated.

The permitting of commercial outfitting and guide activities, as well as the allowance of "recreational livestock" such as pack animals, burros, llamas, and goats will act to maintain such recreational opportunities as guided hunting and equestrian activities--traditional forms of wilderness recreation.

The acquisition of easements to assure legal access to the Woolsey Peak and Signal Mountain wildernesses will impact recreation opportunities by acting to assure public access to the two areas.

The lack of a fee schedule for visitation to wilderness or the non-wilderness corridor, unless required per management action 1-7 of the proposed plan, will act to maintain current opportunities for primitive recreation and feelings of solitude. By providing as "regulation-free" and "fee-free" opportunity as possible, a sense of naturalness, solitude, and unconfined recreation will be maintained for visitors.

### **Vegetation**

Not allowing fuelwood permits to be issued for the wilderness corridor between the two areas will maintain the native vegetation of the corridor and prevent the removal of large amounts of firewood that may deleteriously impact the naturalness of the adjacent wilderness.

Suppression of wildfires occurring in wilderness or threatening to enter wilderness will act to maintain current, non-fire adapted desert vegetation.

Restrictions on bringing hay into wilderness will act to decrease the likelihood of germination and spread of non-native invasive weeds that may negatively impact native vegetation and fauna.

The implementation of a system of photo points to monitor vegetation and land condition, both in wilderness and in the adjacent non-wilderness corridor, will act to maintain current vegetation by providing visual documentation through time of impacts that may occur due to forage utilization by livestock and/or wildlife, and presence of non-

native vegetation.

The removal of horses and wild burros from wilderness as their presence becomes known will act to maintain the current vegetation of the areas.

Bringing forward the current grazing objective, "to maintain ecological rangeland condition currently in good to excellent condition and to improve those areas in poor to fair condition" is expected to result in gradually improving condition of native vegetation.

### **Livestock Grazing**

All water developments used by livestock on the Gable-Ming Allotment are outside of wilderness and are accessible by vehicle. Periodic inspection and maintenance of barbed-wire fencing in wilderness may be effectively carried out by horseback and foot. Inconvenience to the livestock grazing permittee for the Gable-Ming Allotment may occur through the prohibition of aircraft landings and vehicle use in wilderness; however, suitable alternate forms of access are available.

The use of motorized or mechanized equipment in wilderness to monitor livestock is not known for the other allotments of the Woolsey Peak and Signal Mountain wildernesses. No impacts to the livestock grazing programs of these allotments are anticipated to occur as a result of implementation of the proposed action.

A request for the use of motorized and mechanized equipment to repair Hank's Well No. 2 will result in short-term impacts to naturalness and solitude due to the visible and audible effects of motorized and mechanized equipment. Increased visibility of the access route to the well may occur. Use of the well by livestock may cause short-term impacts to vegetation in the immediate vicinity of the water source, and trailing by livestock may occur as livestock travel to and from the well. The repair of Hank's Well No. 2 would provide a water source for wildlife in an area where reliable water is not currently available. As this allotment (Dendora Valley) is an ephemeral allotment, impacts to wildlife also are expected to be shortterm as the well would likely only be used when cattle are authorized during infrequent seasons of forage availability. Thus, the repair of Hank's Well No. 2, if requested, is expected to cause temporary, short-term impacts to naturalness. solitude, vegetation, and wildlife wilderness values.

### Wildlife

BLM Phoenix Field Office records show that water was transported by helicopter to the Bunyan Peak catchment (AGFD 995) in 1992, and by hoselay to the Moody Spring catchment (AGFD 347) in 1994. The Woolsey Peak (AGFD 951) and Signal Peak Potholes (AGFD 942) catchments both have received similar supplements of water due to inadequate storage; however, both have recently been re-developed to increase storage capacity. Neither of the re-developed catchments has required water supplements since capacity was increased (Woolsey Peak catchment was re-developed in 2002 and Signal Peak Potholes catchment was re-developed in 1995).

The re-development of the Bunyan Peak and Moody Spring wildlife water developments are expected to beneficially impact wildlife by providing a reliable source of water, particularly big game such as desert bighorn sheep, and lessen the potential for drought-related population declines. Re-development of the catchments will lessen the potential for short-term impacts to naturalness and solitude from occasional use of aircraft, pumps, and hoselays to supplement water supplies during dry periods, or in the event of malfunction of the developments.

Re-development of the catchments may cause short-term disruptions to naturalness and solitude due to the presence and use of aircraft and motorized and mechanized equipment at construction sites and staging areas. Both Moody Spring and Bunyan Peak catchments are in remote portions of the Woolsey Peak Wilderness and impacts to visitors are not expected to occur at the construction sites; however, short-term impacts to naturalness and feelings of solitude may occur at the staging areas adjacent to wilderness.

Similarly, the capture and removal, or placement into wilderness, of native wildlife such as bighorn sheep may cause short-term impacts to naturalness and solitude by the presence and noise of aircraft. Such actions would be undertaken to augment declining populations and provide for the long-term stability of wildlife populations, or to augment declining populations in other areas of the state. The removal of big game animals is not anticipated to contribute to population declines of wildlife of the Woolsey Peak and Signal Mountain wildernesses.

The use of aircraft by AGFD for purposes of wildlife management as detailed in management action 3-4 of the proposed action is expected to contribute long-term benefits to wildlife by early detection and correction of insufficient water supplies, maintenance problems, and population trends.

#### Horses and Wild Burros

Horses and wild burros are not known to have occurred historically in the Woolsey Peak and Signal Mountain wildernesses, and do not constitute a component of the wilderness value of the two areas. Thus, the removal of horses and wild burros from wilderness as their presence becomes known will act to maintain current wilderness values, including naturalness, vegetation, and wildlife.

### Administrative Costs

The estimated expense of the proposed action over the 10-year implementation period is 15.0 workmonths of labor costs to accomplish ongoing activities and special projects, and \$19,850 in materials to complete identified special projects. At an average cost of approximately \$7,500 per workmonth, the estimated total cost of implementing the proposed action over the 10-year implementation period is \$132,350. This figure does not include the costs of re-developing and maintaining wildlife water catchments.

# <u>Environmental Justice/Impacts to Minority and Low Income Communities</u>

Local communities on the periphery of the Woolsey Peak and Signal Mountain wildernesses include Palo Verde, Arlington, Gila Bend, Sentinel, Hyder, Tonopah, and Wintersburg, as well as the large ranch operations of the Palomas and Painted Rock ranches. According to U.S. Census Bureau data, in 2000 the population of Gila Bend (the only incorporated town on the periphery of the two areas) was represented by approximately 53% Hispanic, 34% White, and 13% American Indian racial types. Approximately 25% of the population was determined to live below the poverty level. Although no figures are available for the nonincorporated communities listed, it is anticipated that the demographic representation and percentage of individuals living at the poverty is approximately the same. Agriculture is the primary economic pursuit, although construction, railroad, and service-sector jobs also contribute to employment.

U.S. Census Bureau data also indicate that the population of Maricopa County, the local jurisdiction for all of the communities listed on the periphery of the two areas, was approximately 25% Hispanic and 75% Not Hispanic (including 66% White and 2.5% American Indian) in 2000. Approximately 12% of residents county-wide live below the poverty level.

No impacts to human health or the human environment will result from implementation of the proposed action. It is not expected that any person or group of people will experience a disproportionate share of environmental consequences as a result of implementation of the proposed action.

### **Energy Resources**

Pursuant to Executive Order 13212, "Actions to Expedite Energy-Related Projects," and BLM policy relating to documentation of impact to energy resources (BLM, 2001), the proposed action was determined to have no direct or indirect adverse impact on energy development, production, supply, and/or distribution.

Mineral reports prepared for the Woolsey Peak and Signal Mountain wilderness areas indicate that the potential for presence of oil and gas is "low to zero" (USGS, 1989a, 1989b).

### Mitigation Measures

- Contact with desert tortoise will be avoided when possible during surface-disturbing activities proposed in this plan. If contact cannot be avoided, affected animals will be temporarily relocated to adjacent and undisturbed habitat using accepted Arizona Game and Fish Department protocol.
- No saguaro or species of agave will be removed as a result of any ground-disturbing activity associated with this plan.

# **Cumulative Impacts**

The potential for cumulative impacts resulting from subtle, gradual changes to vegetation and land condition that may result directly or indirectly from human activities will be reduced by implementation of a system of permanent photo points.

Use of the "minimum tool" concept when considering the use of motorized and/or mechanized equipment to implement actions will

reduce cumulative impacts to naturalness and solitude.

The re-development of two wildlife water catchments will provide for long-term cumulative impact to wildlife populations by providing reliable sources of water. The re-developed catchments will not extend beyond the current "footprint" of the existing developments, therefore long-term cumulative impacts to naturalness, vegetation, and visibility are not expected to occur.

### Impacts of Alternative B. No Action

### Naturalness and Solitude

The reclamation of 3.8 miles of former vehicle ways and one dirt airstrip in the Woolsey Peak Wilderness will not occur. The current unnatural visual contrast of these disturbances will not be lessened.

Vehicle barriers may be constructed at wilderness boundaries to prevent unauthorized motorized access, but such projects will require case-by-case environmental impact documentation.

Without a standard of no new evidence of surface disturbances, deleterious long-term impacts to naturalness and solitude may result from proliferation of campsites, trails, fire rings, damaged vegetation, litter, and miscellaneous debris. Similarly, long-term impacts to cultural values may result without the use of signs, fencing, access restrictions, and motorized and/or mechanized means to protect cultural resources as necessary.

In the absence of visual documentation of vegetation and land condition through time, gradually occurring long-term impacts to naturalness, solitude, and vegetation may go undetected. Further, management actions will not be available to correct or mitigate such impacts should they be discovered.

Short-term visual and audible impacts to naturalness and solitude will result from the authorization of competitive special recreation permits such as motorized off-highway events adjacent to wilderness. Similarly, short-term impacts to naturalness and solitude will occur through the case-by-case authorization of aircraft to facilitate the repair and maintenance of range fences and developments.

## Recreation

Designation of trails; construction of recreation facilities such as developed trailheads, information displays, and toilet facilities; and adoption of social use standards and user fees may occur on a case-by-case basis, potentially causing both short- and long-term impacts to the current outstanding opportunities for primitive recreation, naturalness, and feelings of solitude. Not acquiring easements to assure legal access across private land in T4S, R8W, sections 2 and 13 may lead to long-term negative impacts for access to wilderness..

### Vegetation

Allowing the issuance of fuelwood permits in the wilderness corridor between the two areas may allow large amounts of firewood to be removed, thus causing long-term impacts to naturalness, solitude, and vegetation of the adjacent wilderness.

Suppression of wildfires occurring in wilderness or threatening to enter wilderness will continue as outlined by the Phoenix Field Office's "Interim Guidance for Fire Suppression in Wilderness" (BLM 1991). No differential impacts to vegetation and naturalness are anticipated between the proposed action and no action.

Not enacting restrictions on bringing hay into wilderness potentially would allow for the germination and spread of non-native invasive

weeds in wilderness, causing long-term impacts to naturalness, vegetation, and wildlife.

Long-term impacts to vegetation may occur if horses and wild burros are not removed from wilderness as their presence becomes known.

Bringing forward the current livestock grazing objective will result in gradually improving condition of native vegetation. No differential impacts to vegetation and naturalness are anticipated between the proposed action and no action.

### **Livestock Grazing**

Authorizing aircraft landings in wilderness and the use of motorized and mechanized means for repair and maintenance of range fences in wilderness will allow the livestock grazing operation of the Gable-Ming Allotment to continue as in the past with regard to these actions.

Without the use of motorized and mechanized equipment in wilderness to repair Hank's Well No. 2, it is unlikely the repair of this water development would be feasible in any forseeable circumstance. Short-term impacts to naturalness and solitude will not occur due to visible and audible effects of the use of motorized and mechanized equipment in construction. Increased visibility of the access route to the well will not occur. The well will continue to be unavailable for use by livestock and short-term impacts to vegetation in the immediate vicinity of the water source, and trailing by livestock, will not occur. Short-term impacts to wildlife due to the presence of a new, ephemeral source of water will not be provided.

#### Wildlife

The re-development of the Bunyan Peak and Moody Spring wildlife water developments will not occur. Long-term impacts to wildlife populations will occur as reliable sources of water will not be provided and the potential for drought-related population declines will increase. Short-term impacts to naturalness and solitude may increase due to the occasional use of aircraft, pumps, and hoselays to supplement water supplies during dry periods, or in the event of malfunction of the developments.

Short-term disruptions to naturalness and solitude due to the presence and use of aircraft and motorized and mechanized equipment at construction sites and staging areas will not occur.

Long-term direct impacts to populations of big game animals, such as bighorn sheep, may result if animals may not be placed into wilderness. Long-term indirect impacts to declining populations of big game animals in other areas of the state may occur if the capture and removal of animals from the Woolsey Peak and Signal Mountain wildernesses is not authorized. Short-term impacts to naturalness and solitude by the presence and noise of aircraft will not occur.

### Horses and Burros

Long-term impacts to naturalness, vegetation, and wildlife may occur if horses and wild burros migrate into wilderness from the adjacent Painted Rock Herd Area and are not removed as their presence becomes known.

### **Administrative Costs**

The costs of wilderness administration for the two areas are not estimable for the no action alternative as issues will be handled on a case-by-case basis as they arise. Such "reactionary" management typically is more costly than advance planning because environmental analysis must be completed on a case-by-case basis as projects are proposed. Thus, although the administrative costs for the no action alternative are not estimable with confidence, these costs may be expected to be greater than for the proposed action, given a comparable level of management complexity during the 10-year planning horizon.

# <u>Environmental Justice/Impacts to Minority and Low Income Communities</u>

No impacts to human health or the human environment will result from implementation of the no action alternative. It is not expected that any person or group of people will experience a disproportionate share of negative environmental consequences as a result of implementation of the proposed action.

# **Energy Resources**

The no action alternative was determined to have no direct or indirect adverse impact on energy development, production, supply, and/or distribution.

#### Cumulative Impacts

Cumulative long-term impacts resulting from subtle, gradual changes to vegetation and land condition that may result directly or indirectly from human activities may be greater with the no action alternative as no means to document such changes will be implemented.

The re-development of two wildlife water catchments will not occur, potentially causing long-term cumulative impacts to wildlife populations as reliable sources of water will not exist in two areas of the Woolsey Peak Wilderness.

## **Consultation and Coordination**

See "Appendix A. Public Involvement and List of Preparers" in the "Woolsey Peak Wilderness and Signal Mountain Wilderness Draft Management Plan."

# IX. Finding of No Significant Impact

Woolsey Peak Wilderness and Signal Mountain Wilderness Draft Management Plan

Environmental Assessment No. AZ-020-2003-0102 Case File No.: AZA 25496 and AZA 25488

**Finding of No Significant Impact:** Based on the analysis of potential environmental impacts contained in the accompanying environmental assessment, I have determined that impacts are not expected to be significant; therefore, an environmental impact statement is not required.

Rationale for Finding of No Significant Impact: The proposed action provides for the enhancement and maintenance of naturalness, solitude, and primitive recreation while also managing other land uses and activities provided for by wilderness legislation. Naturalness and solitude will be enhanced by reducing the visual contrast of past human disturbance. Naturalness, solitude, and opportunities for primitive forms of recreation will be maintained by establishing a standard of no new evidence of surface disturbance; not developing facilitated recreation opportunities; prohibiting motorized special recreation events adjacent to the two areas; suppressing wildfires; and requiring the use of the "minimal tool" for the repair and maintenance of range fences and developments, wildlife management activities, and horse and wild burro management. The establishment of a system of periodically visited photo points will allow monitoring for unforseen impacts to wilderness values.

Livestock grazing and wildlife monitoring operations will continue without significant impact, and the redevelopment of two wildlife water catchments will lessen the potential for drought-related wildlife population declines by providing reliable sources of water. Provision for the introduction or removal of big game will contribute to the long-term stability of wildlife populations.

This action will not have a direct or indirect adverse impact on energy development, production, supply, and/or distribution.

**Other Alternatives Considered:** A "no action" alternative was considered. As no unresolved conflicts involving alternate uses of resources, or options offering meaningful differences in environmental impacts, were identified during the course of this analysis, the range of two alternatives was considered to be sufficient.

Teresa A. Raml, Field Manager	Date	

# X. References

- Arizona Game and Fish Commission, and Bureau of Land Management (BLM). 1987. *Master Memorandum of Understanding between state of Arizona, Arizona Game and Fish Commission, and Department of the Interior, Bureau of Land Management.*
- Arizona Game and Fish Department (AGFD). In Prep. *Wildlife of Special Concern in Arizona*. Phoenix, Arizona.
- Brown, David E., ed. 1982. Biotic Communities of the American Southwest-United States and Mexico. *Desert Plants* (4):1-4.
- Bureau of Land Management. 1978. Wilderness Inventory Handbook. Washington, D.C.
- ----. 1983. BLM Manual 8560. Management of Designated Wilderness Areas. Washington, D.C.
- ----. 1984. BLM Manual 8561. Wilderness Management Plans. Washington, D.C.
- -----. 1987. Lower Gila South Final Wilderness Environmental Impact Statement. Phoenix District.
- ----. 1988a. Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan. Washington D.C.
- -----. 1988b. Final Resource Management Plan/Environmental Impact Statement for the Lower Gila South RMP/EIS Area. Phoenix District.
- ----. 1990a. Lower Gila South Habitat Management Plan. Phoenix District.
- ----. 1990b. Strategy for Desert Tortoise Habitat Management on Public Lands in Arizona. Arizona State Office.
- ----. 1991. Phoenix District Interim Guidance for Fire Suppression in Wilderness. Phoenix District.
- ----. 1992. Arizona Wilderness Land Tenure Adjustment Plan. Arizona State Office.

- ----. 1993. Wildlife Operations and Maintenance Plan for the Bighorn Mountains, Harquahala Mountains, Hummingbird Springs, Signal Mountain, Table Top, Tres Alamos, and Woolsey Peak Wilderness Areas. Phoenix District.
- ----. 1999a. [Notes of] Painted Rocks Horse Meeting, April 5, 1999. Phoenix Field Office.
- ----. 1999b. Overview of BLM's NEPA Process. Arizona State Office.
- ----. 2000. 43 CFR Parts 6300 and 8560. Wilderness Management; Final Rule. *Federal Register* 65(241):78358-78376.
- ----. 2001. Instruction Memorandum No. 2002-053.
  - Preparation of a Statement of Adverse Energy Impact. Washington, D.C.
- ----. 2002. Phoenix/Kingman Field Office Search and Rescue Plan. Phoenix Field Office.
- BLM, and USDA-APHIS. 1989. Memorandum of Understanding between U.S. Department of Interior, Bureau of Land Management, Arizona, and U.S. Department of Agriculture, APHIS-Animal Damage Control, Arizona, concerning Animal Damage Control.
- Federal Aviation Administration (FAA). 1993.
  Interagency Agreement between National Park
  Service, Fish and Wildlife Service, Bureau of
  Land Management, and Federal Aviation
  Administration.
- Graham, Helen. 2002. *Personal Communication*. Phoenix Field Office.
- Maricopa Association of Governments. 2002. "July 1, 2001 Municipality Population and Housing Unit Update." <a href="http://www.mag.maricopa.gov.">http://www.mag.maricopa.gov.</a>
- Mohan, Kyle. 2003. *Personal Communication*. Phoenix Field Office.
  - Sellers, William D., and Richard H. Hill. 1974. *Arizona Climate, 2<sup>nd</sup> ed.* The University of Arizona Press, Tucson.
  - Soil Conservation Service. 1986. Soil Survey of

- Aguila-Carefree Area, Parts of Maricopa and Pinal Counties, Arizona. U.S. Department of Agriculture.
- ----. 1987. Soil Survey of Gila Bend-Ajo Area, Arizona, Parts of Maricopa and Pima Counties. U.S. Department of Agriculture.
- U.S. Congress. 1964. *Wilderness Act*. Public Law 88-577. 88<sup>th</sup> Congress.
- ----. 1969. National Environmental Policy Act, as amended. Public Law 91-190. 91<sup>st</sup> Congress.
- ----. 1970. *Clean Air Act, as amended*. Public Law 91-604. 91<sup>st</sup> Congress.
- ----. 1976. Federal Land Policy and Management Act. Public Law 94-579. 94<sup>th</sup> Congress.
- ----. 1990. Arizona Desert Wilderness Act of 1990.
  - Public Law 101-628. 101st Congress.
- U.S. Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS), Wildlife Services. 1998. Predator Damage Management on Federal Public Lands in Arizona, Environmental Assessment, Finding of No Significant Impact, and Decision.
- U.S. Geological Survey. 1989a. *Mineral Resources* of the Signal Mountain Wilderness Study Area, Maricopa County, Arizona. Washington, D.C.
- ----. 1989b. Mineral Resources of the Woolsey Peak Wilderness Study Area, Maricopa County, Arizona. Washington, D.C.

# Appendix A. Public Involvement and List of Preparers

In preparation for this plan, the Bureau of Land Management held three public meetings. These meetings were announced by letter to interested agencies, interest groups, and private citizens. Written comments were solicited from those who were unable to attend the public meetings. The meetings were held in Gila Bend on October 4, 1994; in Wickenburg on October 5, 1994; and in Phoenix on October 6, 1994. Some citizens participated further in the planning process by accompanying BLM staff on field trips, sharing their knowledge of the area, evaluating the work of the interdisciplinary team, expressing concerns regarding current management, and providing their visions for the Woolsey Peak and Signal Mountain Wilderness areas. The time and effort contributed by the public was greatly appreciated.

A planning work group composed of BLM Phoenix Field Office staff, Arizona Game and Fish Department staff, affected interests, and interested members of the public was subsequently formed and met during September, 1995 through March, 1996 to refine these issues and propose management actions.

The members of this group were:

Tony Davis Interested Citizen, Gila

Bend, AZ

Warren "Carter" Gable Livestock Grazing

Permittee

Rich Hanson BLM, Outdoor

Recreation Planner

Dave Hoerath BLM, Wildlife Biologist (separated from BLM)

BLM. Planning and

**Environmental Specialist** 

John Kennedy Arizona Game and Fish

Department

Ken Meaders Arizona Desert Bighorn

Sheep Society

Kyle Mohan BLM, Rangeland

Management Specialist

Interested Citizen, Doug Newton

Tempe, AZ

Wendell Peacock

John Jamrog

BLM, Writer-Editor John Reid BLM. Outdoor Recreation Planner

BLM, Outdoor David Scarbrough

Recreation Planner

The additional BLM staff listed below also assisted with the preparation of this plan:

Washington Office

Jeff Jarvis Senior Wilderness

Specialist

Arizona State Office

Bill Gibson Access Coordinator Ron Hooper Riparian Specialist Ken Mahoney Wilderness Specialist

Phoenix Field Office

Fareed Abou-Haidar Cartographic Technician

(separated from BLM)

Cheryl Blanchard Archeologist

Lin Fehlman Water Rights Specialist Helen Graham Asst. Fire Mgt. Officer Fire Management Officer Glen Joki

Melinda Mahoney Park Ranger Jim Whitehall Staff Assistant

Lori Young Wildlife Biologist

Kingman Field Office

Irv Leach Assistant Fire

Management Officer

Lake Havasu Field Office

Cathy Wolff-White Planning/Environmental

Specialist

Tucson Field Office

Shela McFarlin Tucson Field Manager

San Pedro RNCA

Bill Childress **NCA Manager** Jim Mahoney **Outdoor Recreation** 

Planner

National Interagency Fire Center

Deborah Rawhouser Group Administrator

Retired

Ron Smith Geologist

# **Appendix B. Wildland Fire Suppression Procedures**

### Introduction

The Woolsey Peak Wilderness and Signal Mountain Wilderness fire management procedures provide for:

- a fire suppression strategy which ensures protection of wilderness resources and the safety of humans and structures with suppression techniques resulting in the least possible evidence of human activity, and
- a common understanding by Phoenix Field Office personnel of the constraints, considerations, and procedures involved with wilderness fire suppression operations.

All wildfires will be extinguished with appropriate and approved suppression actions that:

- ensure the protection of wilderness resources.
- provide for the safety of humans and structures,
- result in the least possible evidence of human activity,
- minimize surface disturbance and alterations of the wilderness landscape,
- are consistent with wilderness management objectives and constraints,
- allow for the least possible acreage burned,
- are reasonable and prudent for the time of year, current and predicted fire weather and fire behavior, and availability of fire resources, and
- minimize fire suppression cost.

The fact that a wildfire occurs in wilderness is not in itself an emergency. An emergency exists when:

- a wildfire burning within a wilderness boundary threatens human life or property, or
- there is a definite potential that a wildfire may exceed suppression efforts and/or burn beyond the wilderness boundary and endanger human life, property, managed resources, or the public welfare.

Within the constraints defined by this guidance, initial attack suppression actions will be determined by the Initial Attack Incident Commander and Resource Advisor, if available. A "Wildland Fire Situation Analysis" will be prepared for all wildfires escaping initial attack. Suppression facilities, support vehicles, and improvements (i.e. temporary fire camps,

helispots, staging areas, and other areas used for fire suppression activities) must be outside of wilderness, except those that are the minimum necessary to protect life, property, public welfare, and wilderness objectives. Due to the surface disturbance involved and adverse impacts on wilderness values and esthetics, the use of motorized equipment to construct fireline will be as a last resort only. Surface disturbance in wilderness from suppression actions must be rehabilitated to as natural a state as possible.

The Field Manager and Assistant Field Manager for Resource Use and Protection will be informed immediately of all wildfires that occur in or near wilderness. The Field Manager is the approving official for all requests for motorized equipment and vehicle use in the Woolsey Peak and Signal Mountain Wilderness areas.

#### **Initial Attack Procedures**

- 1. Inform the Field Manager of a fire in wilderness.
- 2. Designate an initial attack Incident Commander.
- 3. Using ground or aerial reconnaissance, determine:
  - fire location, size, rate of spread, and behavior;
  - current and probable fuels, weather, and topography, including natural barriers, and
  - threats to life, property, or sensitive wilderness resources.

Authority is granted to the Incident Commander to fly at levels below 2,000 feet over wilderness in reconnaissance efforts when it is determined necessary to adequately assess the fire.

- 4. Designate and dispatch a Resource Advisor to the fire.
- 5. The Field Manager will consult with the Incident Commander and/or the Resource Advisor to determine the appropriate level of initial attack and fire suppression strategy, considering such variables as weather conditions, time of year, current and predicted fire behavior, and other pertinent factors.
- 6. Take action to suppress the fire, utilizing the most effective tactics while considering the concepts of low impact suppression and minimum tool.

- 7. The use of temporary structures, chainsaws, portable pumps, initial attack aircraft, retardant airtankers, helicopters, aerial ignition systems, helispot construction, wilderness camps, and motorized vehicles may be approved by the Field Manager or his/her designee. The use of motorized earth-moving equipment requires Field Manager approval.
- 8. If the Field Manager or acting cannot be contacted within a 15-minute notification window after arrival of the Incident Commander at the fire, the Incident Commander has discretion to authorize helicopter landings, Single Engine Air Tanker drops, and helicopter water bucket drops after consulting with the resource advisor if he/she is available. Justification for such actions could include:
  - imminent danger to structures or people, and/or
  - serious threats to significant wilderness resources.
- 9. A "Wildland Fire Situation Analysis" will be immediately prepared for any fire that escapes initial attack as determined by the Incident Commander. The analysis will be completed by the Field Office Fire Management Officer, the Field Manager or designated representative, the Incident Commander, and the Resource Advisor.
- 10. A memorandum will be completed by the Resource Advisor and/or the Incident Commander, for the Field Manager, describing the use of motorized vehicles/mechanized equipment following

the fire, with copies submitted to the State Director and placed in the wilderness case file.

At a minimum, a description of the use of motorized or mechanized equipment in wilderness shall contain:

- The name, number and date of the fire;
- The field office and wilderness:
- The names of the Incident Commander, Wilderness Resource Advisor and Field Office Manager;
- A description of the kinds of motorized and/or mechanized uses which occurred, the date they were used, the specific reason for their use and the nature of the emergency:
- A description of the wilderness fire suppression action taken;
- The specific location and description of the work done;

- Rehabilitation actions planned and completed to restore the work area to as natural a condition as possible;
- The date the request was made for the use of motorized or mechanized use and the date the request was approved by the Field Office Manager;
- The date the State Director was informed of the fire and the use of motorized or mechanized equipment;
- Rationale for actions which may have long-term impacts on wilderness values; and
- Any other significant information.
- 11. All human impacts created during suppression efforts will be reclaimed following the fire.

#### **Exceptions**

In special or emergency cases involving the health and safety of wilderness visitors or the protection of wilderness values, aircraft and motorized vehicles and mechanized equipment may be used. In these situations, the Incident Commander should order the resources needed and notify the appropriate line manager immediately.

The use of power tools (e.g., chainsaws, pumps) and aircraft in fire reconnaissance below 2,000 feet above ground level and in building and holding firelines (e.g., retardant tankers, helicopters with buckets) is pre-approved under the following situations to facilitate effective initial attack efforts and to minimize the need to locate line managers on short notice:

- · Flame lengths exceed four feet, or
- Perimeter growth exceeds 12 chains (800 feet) per hour in grass or one chain (66 feet) per hour in brush/shrub fuels.

The use of these tools will be immediately reported by the Incident Commander and the Field Office Fire Management Officer to the Field Manager.

### **Tactical Considerations**

The following planning, line construction, logistics, and rehabilitation considerations are presented to emphasize minimum tool and low impact suppression techniques:

# **Planning**

Emphasize the BLM minimum tool

- policy;
- Evaluate suppression tactics during each planning and strategy session to ensure that they meet wilderness objectives;
- Include the BLM Wilderness Resource
   Advisor and other affected agency
   representatives in all planning and strategy
   sessions:.
- Emphasize the need to protect habitat for sensitive species, including federally listed threatened and endangered species;
- Allow logs and snags to burn rather than be sawed or felled; and
- Assess and request early in the incident the need for additional resource advisors.

### Line Construction and Holding

- When smoke and flames are not visible, or the perimeter is not threatening to spread, no scratchline will be constructed;
- Firelines will be no wider than absolutely necessary to stop the spread of the fire;.
- Use natural barriers as much as possible in fireline construction. Locate firelines to take advantage of natural barriers, rock outcroppings, streams and washes,
- Limbing of trees along the fireline will be done only as necessary for suppression efforts or for firefighter safety;
- If unburned material is left within the fireline, all such material will be felt with bare hands to assure that no sparks or glowing embers remain;
- Burning snags or trees will only be felled when they may fall across the fireline or
  - endanger firefighters. They will be allowed to burn naturally, if possible:
- Spot fires will be flagged and/or signed from a main fire;
- A flagged line from the nearest road or trail will be left for checking purposes. This line will be removed by the last person to check the fire; and
- Consider the use of single engine air tankers with the capacity of 350 to 400 gallons of water, foam or fugitive fire retardant, during initial attack.

### Logistics

- During helicopter operations to deliver and retrieve gear, use a long line or remote hook in lieu of constructing helispots;
- · Emphasize mule pack strings to re-

- supply fire crews;
- Consider the use of rappelling operations;
- Crews will stay on existing trails whenever possible;
- Wilderness base camps and spike camps are discouraged. Evaluate the location and need of spike camps daily; and
- If base or spike camps are approved for use in wilderness:
  - utilize low impact, "No Trace" camping techniques, site selection and site use;
  - < use existing campsites, if available;
  - < if not available, select a campsite unlikely to be observed by visitors;
  - < select impact-resistant sites, such as sandy washes;
  - < change camp location if ground vegetation in or around the camp shows signs of excessive use;
  - < cause minimal disturbance to the land in preparing sleeping and cooking areas;
  - < do not clear vegetation or dig trenches for sleeping areas;
  - < locate toilet sites a minimum of 200 feet from any water source or ephemeral wash; holes must be dug six to eight inches deep:
  - < select alternate travel routes between camp and the fire if trail wear becomes excessive; and
  - < restore the camping areas to as natural a condition as possible.

## Rehabilitation

Emphasize to all fire personnel the need to remove all signs of human activity, including:

- Removal of all garbage and litter;
- Filling and contouring of firelines and trenches;
- Constructing waterbars on firelines as necessary to prevent erosion;
- Filling and covering latrine sites; and
- Ensuring that the stumps of cut trees or large brush are flush with the ground and the limbs are scattered.

These guidelines include the restoration of staging areas, helicopter landing sites and any other areas disturbed as a result of fire suppression activities.

# Appendix C. Wildlife Operations Plan

The following wildlife operations and maintenance management direction has been carried forward from the "Wildlife Operations and Maintenance Plan for the Big Horn Mountains, Harquahala Mountains, Hummingbird Springs, Signal Mountain, Table Top, Tres Alamos, and Woolsey Peak Wilderness Areas" (BLM, 1993) and adopted as a part of this wilderness plan.

# A. Ongoing Operations

### 1. Aerial

## a. Census Flights

The Arizona Game and Fish Department conducts aerial census flights for several game species within the Woolsey Peak and Signal Mountain wilderness areas. Bighorn sheep are counted by helicopter on two days in late October and again on two days in March. Mule deer and javelina are counted via fixed-wing aircraft in a three-day period in January. No landings are made during the counts and the only motorized or mechanized equipment utilized is the AGFD contract aircraft.

### Selected Management Direction:

- 1) Aerial census of game populations may continue in the Woolsey Peak and Signal Mountain wilderness areas. The activity supports both the wildlife management goals of BLM and the AGFD and the intent of Congress expressed in the Arizona Desert Wilderness Act.
- 2) The timing and duration of flight operations have been limited voluntarily and by fiscal constraints, by AGFD. Weekend flights will not be authorized October through May, excepting those surveys which are conducted with simultaneous ground surveys, which may require large groups of volunteers.
- 3) The Arizona Game and Fish Department will notify BLM at least two weeks prior to scheduled flights.
- 4) All efforts will be made to combine tasks (inspection, telemetry, census) into single flight operations.

### b. Telemetry Flights

Telemetry and telemetry flights may be permitted if they are essential to studies that may not be accomplished elsewhere. Research is a valid use in wilderness areas, but the language is very clear that research be conducted outside wilderness areas, if at all possible.

# Selected Management Direction:

- 1) Presently there are no telemetry studies being conducted in the Woolsey Peak and Signal Mountain wildernesses.
- 2) New telemetry studies will be allowed only: (1) in the case of Threatened or Endangered species research that cannot be conducted elsewhere, (2) for emergency situations within wildlife populations within the wilderness areas, and (3) to aid monitoring of any transplant operations which may be undertaken.
- 3) Any telemetry flights that do occur will be subject to the same stipulations placed on census flights (2, 3, 4 above).
- 4) Emergency motorized access (aerial or vehicle) may be allowed to retrieve data and/or telemetry equipment from deceased study animals that lie in rugged or remote areas, so long as it is the minimum tool necessary to accomplish the task. Authorization from BLM will be required prior to this activity being allowed.

# c. Water supplement flights

The Arizona Game and Fish Department supplements the water storage supplies of some catchments when they are in imminent danger of going dry. Signal Peak Pothole (AGFD 942), Bunyan Peak Catchment (AGFD 995), and Woolsey Peak Tank (AGFD 951) may require supplementation.

## Selected Management Direction:

1) These developments in the Woolsey Peak Wilderness and Signal Mountain Wilderness are virtually the only sources of semi-permanent water for the bighorn sheep population in these wilderness areas when the Gila River is dry. This bighorn population enhances visitor wilderness values. Water supplementation, when necessary as an emergency action when water storage facilities are about to go dry, supports the management goals of BLM and the Arizona Game and Fish Department, and is consistent with BLM wilderness guidelines and the Memorandum of Understanding between BLM and AGFD.

- 2) If the distribution or water use pattern of the bighorn sheep is such that one catchment can go dry for a period of time without negative effects, supplementation may be avoided.
- 3) The only limitation placed on supplementation flights are that they be conducted in one day and on a week day to minimize impacts on recreation and wilderness values.
- 4) The Arizona Game and Fish Department will notify BLM (Field Manager) as far in advance as is possible prior to supplementation and again upon its completion.
- 2. <u>Motorized/mechanized equipment use on the ground</u>

### a. Inspection of improvements

The use of motor vehicles to inspect wildlife water developments is not anticipated or authorized.

### b. Motorized access to fill water developments

The use of motor vehicles to fill water developments is not anticipated or authorized.

# Appendix D. Glossary

Accepted Uses (formerly known as nonconforming uses): Uses allowed by the Wilderness Act of 1964 that were in existence prior to wilderness designation and not necessarily compatible with preserving wilderness values (e.g., mining, livestock grazing, and range or wildlife development maintenance).

**Activity Planning**: Site-specific planning which precedes actual development. This is the most detailed level of BLM planning.

Air Quality Classes: Classes established by the Environmental Protection Agency to define the amount of air pollution considered significant within an area. Class I applies to areas where almost any change in air quality would be considered significant and therefore not allowed; Class II applies to areas where the deterioration normally accompanying moderate well-controlled growth would be considered allowable; and Class III applies to areas where deterioration up to the national standards would be allowed.

**Allotment**: A land area where one or more operators' livestock graze. It generally consists of public land but may include parcels of private and state-owned lands. The number of livestock and the season of use are stipulated for each allotment.

Allotment Management Plan (AMP): A BLM livestock grazing management plan for a specific allotment, based on multiple use resource management objectives. The AMP considers livestock grazing in relation to other uses of the range and in relation to renewable resources—watershed, vegetation, and wildlife. An AMP establishes the seasons of use, the number of livestock to be permitted on the range, and the rangeland developments needed.

**Animal Unit Month (AUM)**: The amount of forage needed to sustain one cow or its equivalent for one month.

**Bajada**: A broad, gently inclined slope at the foot of a mountain, formed by the coalescing of alluvial fans.

**Base Camp** (regarding firefighting activities): That location at which primary firefighting logistics functions are coordinated and administered.

**Base Camp** (regarding recreational activities): A temporary staging location which serves as the primary loading and unloading point for the wilderness visitor or outfitter and its clients.

Burro Herd Area: The area used by feeroaming burros during their yearly movements to obtain biological requirements; the area occupied by wild free-roaming burros at the passage of the Free-Roaming Wild Horse and Burro Act of December 15, 1971 and limited to that area by the Act, not to be expanded by the relocating of animals.

Cherrystem Road: A dead-end road extending into and surrounded by a wilderness but not within its boundaries.

**Commercial**: For profit, attempted profit, salary, increase in business or financial standing, or for support of activities from amounts received or services rendered in connection with the permitted activities.

**Critical Wildlife Habitat**: That part of the habitat of a wildlife species that is essential to its survival and perpetuation as a population.

Cultural Resources: Those fragile and nonrenewable remains of human activity, occupation, or endeavor (reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, and natural features) which were of importance in human events. These resources consist of (1) physical remains, (2) areas where significant human events occurred—even though evidence of the event no longer remains, and (3) the environment immediately surrounding the actual resource.

Custodial Grazing Management: A limited form of rangeland management employed when the percentage of public land is small, when public land is scheduled to be transferred from public ownership, or when other conditions are not conducive to intensive management. Under custodial management, an allottee is not required to follow a specified grazing system. BLM licenses custodial allotments only for the capacity of the public land but does not control overall livestock numbers.

**Ecosystem**: The organisms of a particular

habitat together with the physical environment in which they live; a dynamic complex of plant and animal communities and their associated non-living environment.

**Environmental Assessment (EA)**: The procedure for analyzing the impacts of some proposed action on a given environment and the documentation of that analysis.

**Ephemeral Forage**: Plants consumed by domestic livestock and native wildlife which complete a life cycle and die in one year or less. Germination and growth of these plants does not occur consistently each year but is determined by several weather and soil conditions (e.g., timing and amount of precipitation, temperature, winds, soil types and depths, etc.).

**Ephemeral Allotment**: An allotment on which livestock grazing is permitted when sufficient precipitation and temperatures provide the potential for the growth of abundant annual (ephemeral) vegetation. See Perennial-Ephemeral Allotment.

**Forage**: All browse and herbaceous foods, available to grazing animals, which may be grazed or harvested for feeding.

**Former Vehicle Way**: A vehicle route established and maintained solely by the passage of motor vehicles prior to wilderness designation or by vehicular access after designation where approved as per 43 CFR 6300.

**Fire Retardant**: Any substance except plain water that by chemical or physical action reduces flammability of fuels or slows their combustion rate.

**Habitat**: A specific set of physical conditions that surround a single species, a group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.

Habitat Management Plan (HMP): A written and officially approved plan (for a specific geographic area of public land) that identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives, and outlines procedures for evaluating accomplishments.

**Hobbling**: The act of binding two of the legs of a stock animal together to restrict its movements.

**Inholding**: A parcel of state or private land surrounded by wilderness.

Interim Operations Plans: Written documents which authorize the use of certain types of mechanized trasport and mechanized/motorized equipment under certain conditions. They serve as interim approval of the activities until a wilderness management plan is completed. The documents receive public review similar to that of the wilderness management plan. They typically address activities associated with wildlife, livestock, and horse and wild burro management within the wilderness.

**Mechanized Transport**: Any device for transporting personnel or material with wheels, tracks, skids, or by flotation for traveling over land, water, or snow and propelled by a nonliving power source contained or carried on or within the device.

**Motor Vehicle**: Any vehicle which is selfpropelled, or any vehicle which is propelled by electric power obtained from batteries.

**Motorized/Mechanized Equipment**: Any machine activated by a nonliving power source except small battery-powered, hand-carried devices such as flashlights, shavers, Geiger counters, and cameras.

**Non-profit**: Not conducted or maintained for the purpose of making a valuable return or net income.

**Perennial-Ephemeral Allotment**: A classification of grazing allotment on which livestock are permitted to graze both perennial and ephemeral (annual) vegetation.

**Perennial Plant**: A plant that has a life cycle of three or more years.

**Primitive Recreation**: Non-motorized and non-developed types of outdoor recreation (hiking, backpacking, camping, and hunting).

**Public Land**: Federal lands administered by the Bureau of Land Management.

Rangeland Development: A structure,

development, or action used together with good management practices and land use planning recommendations (1) to rehabilitate, protect, and improve public land and its resources; (2) to arrest rangeland deterioration; and (3) to improve forage condition, fish and wildlife habitat, watershed protection, and livestock production.

**Rappelling**: The act of descending from a cliff or helicopter by means of a rope passed over the climber's body in a specific manner.

Resource Management Plan (RMP): A BLM planning document that presents systematic guidelines for making resource management decisions for a Field Office. An RMP is based on an analysis of an area's resources, their existing management, and their capability for alternative uses. RMP's are issue-oriented and developed by an interdisciplinary team with public participation.

**Roadless**: The absence of roads that have been improved and maintained by mechanical means to ensure relatively regular and continuous use. A way maintained solely by the passage of vehicles does not constitute a road.

Scoping: An early and open process for identifying the significant issues to be addressed in a management plan. Scoping may involve public meetings, field interviews with representatives of agencies and interest groups, discussions with resource specialists and managers, and written comments in response to news releases, direct mailings, and articles about the proposed action(s) and scoping meetings.

**Social Encounter**: An interaction between one or more persons and their associated pack stock which occurs within a distance which a person would normally acknowledge another person. It is not just the sight or sound of an individual or individuals at a greater distance.

**Special Event**: An organized recreational activity which occurs infrequently (e.g., a fundraising horseback ride for a charitable or non-profit institution or organization).

**Special Status Species**: Those wildlife species either federally listed as endangered or threatened, state-listed, or listed by BLM as

sensitive.

**Spike Camp** (regarding firefighting activities): A fire camp with minimum facilities established along a fireline for the subsistence and equipping of firefighters.

**Spike Camp** (regarding recreational activities): The location where the outfitter, pack animals, and clients spend the night within a wilderness.

**Utilization (Forage)**: The proportion of the current year's forage consumed or destroyed by grazing animals. Utilization is usually expressed as a percentage.

**Vegetation Type**: A plant community with distinguishable characteristics, described by the dominant vegetation present.